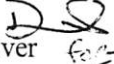


MEMORANDUM

TO: Council, SSC and AP Members  
FROM: Chris Oliver   
Executive Director  
DATE: May 31, 2006  
SUBJECT: Protected Resources Report

ESTIMATED TIME 3 HOURS
---------------------------

ACTION REQUIRED

Receive report on Protected Resources issues and take action as necessary.

BACKGROUND

A. FMP Level Consultation

On April 19, 2006 NMFS Sustainable Fisheries Division submitted the Biological Assessment to NMFS Protected Resources Division (PR). This action constitutes the request to reinitiate formal Section 7 consultation under the Endangered Species Act (ESA). The Biological Assessment (BA) describes the proposed action (continued authorization of the FMPs for both the GOA and BSAI groundfish fisheries and implementing regulations) and provides determinations by Sustainable Fisheries whether the groundfish fisheries are likely to adversely affect listed species or their critical habitat. The NMFS letter and Executive Summary provide more details on the Biological Assessment (see Item B-7(a)).

Since the February 2006 meeting, the Council's Steller Sea Lion Mitigation Committee (SSLMC) has met twice to receive and review new information on SSL populations and trends, including results of studies of fishery effects, predation, nutritional stress, disease, etc. Minutes from these two meetings are provided as Item B-7(b). The SSLMC will continue to gather relevant information, review proposals for changes in SSL protection measures, and be the principal interface between the consultation and the Council; eventually the SSLMC will make recommendations to the Council for possible changes in fishing regulations. The SSLMC has established a web site as a repository for relevant documents, presentations, scientific literature, and other information it will use in the course of its work. This web site will also be a means to inform the public about the SSLMC's activities. The next meeting of the SSLMC is June 27-29 in Seattle; this meeting will be preceded by a June 26 work session of a subcommittee of the SSLMC to develop a strawman impact evaluation tool which will aid the SSLMC as it reviews proposals.

The SSLMC has recommended that the Council issue a Call for Proposals to change SSL protection measures in the P. Cod, Atka mackerel, and pollock fisheries in the GOA and BSAI. If the Council agrees, the Call would be issued immediately, and a due date for proposals would be in early August. The SSLMC's suggested time line for analysis of proposals is provided in the minutes of the May 16-18 SSLMC meeting (Item B-7(b)).

The Compendium of Steller sea lion literature is now available for review. As you recall, this effort was completed through a contract with Drs. Tom Loughlin and Jack Tagart. The Compendium is an annotated bibliography of Steller sea lion related research and a synthesis of this scientific information; copies of the full research papers referenced in the compendium report (in both hard copy and pdf form) have been provided by the contractors and will be part of the consultation record. The Compendium provides summaries of research and relevant publications produced since 2000 in eleven thematic categories: SSL life history, foraging, vital rates, fishery effects, ecosystem effects, other anthropogenic effects, predation, disease, contaminants, management, and communications; some theme areas have additional sub theme summaries (see Item B-7(c)). The Compendium will be an important part of the record for the new FMP consultation and a source document to inform NMFS, the Council, the SSL Mitigation Committee, and the public as the consultation proceeds. Dr. Tagart will present the draft Compendium to the Council at this meeting. The SSC will receive a briefing as well. The Council is scheduled to receive the Compendium and provide comments.

#### B. List of Fisheries for 2006

As required by the Marine Mammal Protection Act, NMFS annually publishes a List of Fisheries (LOF) that places all U.S. commercial fisheries into one of three categories based on the level of serious injury or mortality to marine mammals that occur in each fishery. The Proposed Rule for the LOF for 2005, published December 2, 2004 (69 FR 70094), listed changes that affected five Alaskan groundfish fisheries which were placed into Category II. The Council and its SSC provided comments on that Proposed Rule and the Final Rule was published January 5, 2006. The Final Rule for the LOF for 2005 acknowledged these comments but retained the classification noted above.

On April 24, 2006 NMFS published the proposed LOF for 2006 (Item B-7(d)). The LOF for 2006 has four of the same Alaska groundfish fisheries in Category II as last year, but NMFS proposes to remove one of the five fisheries placed in Category II in 2005 and place it in Category III for 2006 – the BSAI Greenland turbot longline fishery. While the proposed rule for the LOF for 2006 does not provide the criteria and analysis methodology used to place (retain) the four fisheries in Category II, presumably it is the same as was used in 2005. The proposed rule does provide the rationale for moving the turbot longline fishery back to Category III.

The LOF for 2006 also adds a group of marine mammal stocks to the list of species that may be killed or injured by some Alaska groundfish fisheries. While this doesn't affect their categorization, it does point out that NMFS has new data that indicate these fisheries can kill or injure additional marine mammal species (in addition to the marine mammal species and stocks they already recorded to have such interactions with these fisheries). The LOF for 2006 also removes two marine mammal species, the eastern North Pacific transient killer whale and the eastern North Pacific resident killer whale, from the list of marine mammals that may be killed or injured in the BSAI flatfish trawl fishery and the BSAI pollock trawl fishery, respectively. The agency now has genetic data to indicate which stock of killer whales interact with these fisheries.

The comment period for the LOF for 2006 ended May 24.

#### C. SSL Recovery Plan

The draft Steller Sea Lion Recovery Plan was released for public review on May 24, 2006 (the FR notice and Executive Summary of the draft Recovery Plan are at Item B-7(e)). Copies of the draft Recovery Plan were sent out in a Council mailing on May 30 and have been available on the NMFS web site since May 24. The Council is scheduled to review the draft Recovery Plan at this meeting. The SSC will provide initial comments on the Recovery Plan at this meeting; the Council will hear from the SSC on its



recommendations for any further review. The SSLMC also will review the plan at its upcoming June 27-29 meeting.

#### D. Seabirds

In 2004, NMFS issued a final rule requiring seabird avoidance measures in the hook-and-line groundfish fisheries of the Bering Sea and Aleutian Islands management area (BSAI) and Gulf of Alaska (GOA) and in the Pacific halibut fishery in U.S. Convention waters off Alaska. These measures were believed necessary at the time to mitigate potential adverse effects of hook-and-line fisheries on endangered albatross and other seabird species. The revised regulations were based in part on Washington Sea Grant Program research conducted on board vessels longer than 55 ft. Thus, the performance and construction standards for the required streamer lines were designed for these larger vessels and therefore were not applied to smaller vessels (26-55 ft). At that time, the SSC identified the need for additional study to determine whether similar measures should be required for smaller vessels.

Additional studies have now been completed. Washington and Alaska Sea Grant programs have completed several research projects and reports on the occurrence of albatross and other seabird species in inside waters, and on the performance of seabird avoidance gear on 26–55 ft vessels. These studies combined provide information on the efficiency and efficacy of various types of seabird avoidance gear on small vessels and on the magnitude of longline fishery interactions with seabirds in inside waters. Copies of these reports were sent in a recent Council mailing (Executive Summaries of these reports are provided as Item B-7(f)).

NMFS has suggested that the Council may wish to consider refinements to the existing seabird avoidance measures and perhaps to seek additional public comment and suggestions for improving seabird avoidance (see NMFS letter dated May 25, 2006 (Item B-7(g))). Representatives from the Washington and Alaska Sea Grant Programs are here to present overviews of this new information. NMFS staff is available to answer questions on recommendations for further Council action.

#### E. Northern Right Whale

During its December 2005 meeting, the Council received a report on the proposed designation of critical habitat for the northern right whale. Two critical habitat areas are proposed by NMFS, one in the Bering Sea and another in the Gulf of Alaska near Kodiak Island. The Council provided comments on the proposed designation in a letter to NMFS dated December 19, 2005. The agency subsequently convened a public hearing on the right whale critical habitat proposed rule on March 2, 2006 and received additional comments from the public attending that hearing; the comment period was reopened for about a week at that time as well. NMFS is preparing a final rule that will address all comments received. The Final Rule will be published on or before June 30, 2006.

#### F. Northern Sea Otter

On February 23, 2006, NMFS submitted to the U.S. Fish & Wildlife Service (USFWS) a request for reinitiation of Section 7 consultation on the effects of Federal groundfish and State parallel groundfish fisheries on the threatened Southwest Alaska Distinct Population Segment (DPS) of Northern Sea Otter. Accompanying that letter was a Biological Assessment document that summarized available information on the known interactions between these fisheries and the Southwest Alaska DPS; NMFS outlined potential concerns over adverse effects on sea otters from discharge of petroleum products from fishing activities and from entanglement with certain groundfish fishing gear. On May 15, the USFWS responded to the NMFS request for consultation and concluded that potential discharges of petroleum products from fishing activities is outside the regulatory authorities of NMFS and any further

consultation on such activities would more appropriately be conducted with the U.S. Coast Guard. The USFWS also concluded that potential incidental take of the Southwest Alaska DPS through entanglement with fishing gear is discountable. On May 25, NMFS replied to the USFWS agreeing to their conclusions and concluded that formal consultation is not required and this consultation has been completed. Copies of the May 15 and 25 letters referenced above are at Item B-7(h).

#### G. Cook Inlet Beluga Whales

As previously reported to the Council, NMFS is conducting a status review of the Cook Inlet beluga whale. Under the Endangered Species Act, an agency may conduct such a review to gather information that may be relevant to a proposed listing of the species as threatened or endangered. The FR notice of the review was published March 24, 2006. NMFS recently reopened the time period for submitting information (FR notice dated April 28, 2006); written information could be submitted to the Agency by May 30, 2006. Both notices are at Item B-7(i).

The issue of concern is the decline in abundance of Cook Inlet belugas from an historic abundance level of over 1000 animals to just several hundred in recent years. NMFS proposed regulations limiting the harvest of beluga whales in Cook Inlet, and although subsistence hunting has been regulated since 1999, annual aerial surveys have not yet detected a significant increase in abundance, which remains under 400 whales. NMFS currently is seeking information on the known range of beluga whales in Cook Inlet, their movement patterns and foraging behavior, contamination in belugas or their prey, impacts from recreational activities, future habitat changes planned in Cook Inlet, and other effects including effects from the oil and gas industry, commercial shipping, and commercial fishing.

On April 20, 2006, Trustees for Alaska, on behalf of a group of petitioners, filed a petition with the Secretary of Commerce to list the Cook Inlet beluga whale as endangered under the ESA and that its critical habitat be designated concurrently with its listing (Item B-7(i)). The Petition cites potential adverse effects from fishing activities such as incidental mortality from gear entanglement, redistribution of belugas from fishing vessel activity, and effects on beluga whale prey items, particularly salmon. The 2005 Cook Inlet beluga whale stock assessment is provided as Item B-7(j).

#### H. Northern Fur Seal Conservation Plan

NMFS intends to release for public review its draft Conservation Plan for the northern fur seal. The last conservation plan was published in 1993. The new Plan should be available in early June. The Council may wish to consider whether its Fur Seal Committee should review the plan.

#### I. Steller Sea Lion Research Permits Vacated

The Humane Society and other plaintiffs have sued the Secretary of Commerce, Conrad Lautenbacher, William Hogarth, and NMFS claiming violations of NEPA, the ESA, the MMPA, and the APA by issuing certain permits that authorize research on the Steller sea lion. On May 26, 2006 U.S. District Court (for the District of Columbia) Judge Ellen Segal Huvelle ordered that the contested permits, which authorize research on SSLs, be vacated. The Humane Society's press release on this issue and the Judge's order are attached as Item B-7(k). These research permits were issued by NMFS for SSL research for 2006 and subsequent years. The agency has initiated preparation of an EIS to explore and analyze potential impacts of the SSL (and northern fur seal) research activities and to explore alternative ways that this research might be conducted. But the plaintiffs claimed that the EIS should be completed before this research continues and the Court has agreed by stating:



In its haste, NMFS neglected to take a "hard look" at the relevant environmental issues and thereby failed to make a "convincing case" that the authorized research will not have a significant impact on the environment.....Since NMFS has decided, after the fact, to prepare an EIS that will address Steller sea lion research, and in light of the relationship between potential research-related deaths and the western stock's PBR level, the substantial controversy regarding the research's effects, the unknown risks and uncertain effects stemming from the approved activities, and the possibility of a cumulatively significant impact on the environment, the Court concludes that "significant environmental impacts might result" from the issuance of the contested permits.....As an EIS was therefore required.....the Court will vacate the contested permits and remand the case to NMFS for preparation of an EIS.

At the time of preparation of this Action Memo, it was unclear which SSL research activities have been affected by this Court's order. However, NMML has cancelled most of its 2006 SSL field research programs and the programs of the Sea Life Center, the North Pacific Universities Marine Mammal Research Consortium, the University of Alaska, the Alaska Department of Fish & Game, and others are likely to be severely curtailed or cancelled until the ongoing EIS is completed. The Court's order references an FR notice of authorized SSL research permits and these may be among the permits affected by the order (see Item B-7(1)). NMFS' contractor preparing the EIS, URS Corporation, plans to expedite its completion, but that overall effort will likely continue into 2007.

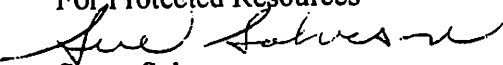


**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
*National Marine Fisheries Service*  
P.O. Box 21668  
Juneau, Alaska 99802-1668

AGENDA B-7(a)  
JUNE 2006

April 19, 2006

MEMORANDUM FOR: Kaja Brix  
Assistant Regional Administrator  
For Protected Resources

FROM:   
Susan Salvesson  
Assistant Regional Administrator  
For Sustainable Fisheries

SUBJECT: Reinitiation of Endangered Species Act (ESA) Section 7  
Consultation for the Alaska Groundfish Fishery Management Plans  
(FMPs).

I request reinitiation of ESA Section 7 formal consultation on the effects of the federal groundfish fisheries on ESA-listed cetaceans, sea turtles, Steller sea lions and proposed and designated critical habitats. The section 7 consultation for Pacific salmon currently is being conducted by the NMFS Northwest Region which maintains the expertise on ESA-listed salmon species. The action being consulted on includes the State of Alaska parallel groundfish fisheries (see Attachment 1) and the Federal groundfish fisheries as authorized under the following FMPs:

- FMP for Groundfish of the Bering Sea and Aleutian Islands Management Area (BSAI), January 2005
- FMP for Groundfish of the Gulf of Alaska (GOA), January 2005

We consider this consultation to be a mid-term evaluation of fishery effects on listed species for which we already have an FMP-level biological opinion in place that was completed in November 2000 (FMP BiOp) and supplemented in 2001 with a biological opinion evaluating fishery effects on the western distinct population segment (DPS) of Steller sea lions and their critical habitat (2001 BiOp). Since the conclusion of the FMP BiOp and the 2001 BiOp, all subsequent modifications to the action have been considered through additional consultations, and thus have already undergone review under the ESA. These consultations have concluded that the current federal and parallel groundfish fisheries are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species during the time period that the new FMP-level consultation is conducted.

On October 18, 2005, the Council requested that NMFS reinitiate consultation on the FMP BiOp and evaluate all new information that has developed since the previous consultations. New



information would be useful as the Council considers potential changes to the Steller sea lion protection measures implemented in the fisheries. Based on the Council's request, reinitiation of formal consultation is prudent to allow consideration of the latest information as the Council reexamines the Steller sea lion protection measures and their effectiveness.

The attached biological assessment (BA) provides the information necessary to initiate consultation. Each element required by 50 CFR 402.14(c) is addressed in parts of the BA as identified below.

- A description of the action: Section 1.0, Section 2.0., Appendices A and B
- A description of the action area: Section 2.0
- A description of ESA-listed species and critical habitat affected by the action: Section 3.0
- A description of the manner in which the action may affect ESA-listed species and critical habitat: Section 3.0
- Cumulative Effects: Section 4.0
- Relevant reports: Section 5.0 and Section 7.0

In response to your March 13, 2006, memorandum requesting assistance for the consultation, we included several items in the BA as follows:

- Updated maps of fisheries management areas: Section 2.5 and Appendix A
- Updated harvest specifications tables: Section 2.6
- Updated maximum retainable bycatch tables: Section 2.6
- Updated regulatory allocations of total allowable catch by season, gear, sector, and area: Section 2.6
- Updated maps of Steller sea lion protection areas: Appendix A
- Description of temporal dispersion of the Atka mackerel fishery by season: Appendix B

The four remaining items in your memorandum requested from Sustainable Fisheries will be provided before May 15, 2006.

Section 3 of the attached BA provides our determinations on whether the Alaska groundfish fisheries are likely to adversely affect listed species or their critical habitat. These determinations are based on evidence of historical interaction or the potential for interaction between listed species and the groundfish fisheries. We understand that our determinations will be assessed as part of the consultation process and that your expert review of the available information and data may lead to modified conclusions.

Attachments (2)



# STATE OF ALASKA

FRANK H. MURKOWSKI  
GOVERNOR

DEPARTMENT OF FISH AND GAME  
OFFICE OF THE COMMISSIONER

P.O. BOX 115526  
JUNEAU, AK 99811-5526  
PHONE: (907) 465-4100  
FAX: (907) 465-2332

March 31, 2006

Mr. Doug Mecum, Acting Regional Administrator  
National Marine Fisheries Service  
NOAA, U.S. Department of Commerce  
P.O. Box 21668  
Juneau, AK 99802-1668

  
Dear Mr. Mecum:

Thank you for your recent letter regarding the Endangered Species Act (ESA) Section 7 consultation on the effects of Alaska groundfish fisheries on ESA-listed marine mammals and sea turtles. The State of Alaska accepts the invitation to participate in the Section 7 consultation for the Bering Sea and Aleutian Islands Management Area and the Gulf of Alaska groundfish fishery management plans (FMP) with regard to the state-managed parallel groundfish fisheries. The parallel groundfish (Pacific cod, Atka mackerel, and pollock) fisheries are those fisheries managed by the state using the same harvest limits, seasons, and area restrictions as the federal fisheries.

Staff from the Alaska Department of Fish & Game will be available to work with National Marine Fisheries Service during the consultation process. We also plan to update the October 2000 overview document that described the effects of all state-managed fisheries on Steller sea lions. We look forward to participating in the FMP-level review of Alaska's groundfish fisheries.

Sincerely,



Mokie Campbell  
Commissioner

## **Executive Summary**

The Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.; ESA) provides the primary legal framework for the conservation and recovery of species in danger of or threatened with extinction. The purposes of the ESA include:

“to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species ...” (16 U.S.C. § 1531(b)).

All Federal actions that may affect listed species under the Endangered Species Act (ESA), including management of the Alaska groundfish fisheries, must be reviewed under section 7(a)(2) of the ESA. In doing so, each Federal agency must insure that its actions do not jeopardize the existence of threatened or endangered species or destroy or adversely modify their critical habitat. This biological assessment provides the information necessary to begin a review of the Alaska groundfish fisheries and to determine the potential impacts of the Alaska groundfish fisheries on ESA-listed species and designated critical habitat.

NMFS has determined that reinitiation of the consultation on the groundfish fisheries is appropriate in order to provide a comprehensive review of all relevant information and the numerous project level changes that have been made to the action since the last program level review in 2000. The purpose of the reinitiation would be to assess how these previously reviewed individual actions affect ESA-listed species when taken together as a whole in light of the best scientific and commercial information available. A complete, formal review at the program level will provide an appropriate foundation to consider future project level actions.

The action analyzed is the implementation of the groundfish fisheries as authorized by the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Island Management Area and the Fishery Management Plan for Groundfish of the Gulf of Alaska. The action includes the State parallel groundfish fisheries conducted within waters from 0-3 nm of the shore. The State parallel groundfish fisheries are the pollock, Pacific cod, and Atka mackerel fisheries conducted in the same time and area restrictions and under the same total allowable catch as established for the federal fisheries. The action area is the exclusive economic zone off Alaska.

This biological assessment reviewed the best scientific and commercial information available for all NMFS managed ESA-listed species (except salmon and steelhead) which occur in the action area. These species include Steller sea lions, whales, and sea turtles. Groundfish fisheries can impact ESA-listed marine mammals and turtles through competition for prey, disturbance and incidental take by gear entanglements. The analysis determined if the ESA-listed animals was likely to occur in the action area, and if so, whether the groundfish fisheries were likely to have an adverse effect on the animal. Most of the impacts on ESA-listed marine mammals and turtles from groundfish

fisheries were potential incidental take during fishing activities and gear entanglement. Humpback whale, sperm whale, and Steller sea lions also have potential to compete with the groundfish fisheries for prey, though the potential competition is better understood and studied for Steller sea lions. In addition, the potential cumulative effects on these ESA-listed species were addressed in Chapter 4. The analyzed species and the conclusions of the assessment are listed in the Table ES.1.



**Table ES.1 Summary of Adverse Affect Determinations for Alaska Groundfish Fisheries**

Listed Species	Population or DPS	Scientific Name	Status	Assessment Conclusion	Reason
Blue whale	North Pacific	<i>Balaenoptera musculus</i>	Endangered	AK groundfish fisheries are not likely to adversely affect (NLAA).	No evidence of fisheries interaction and rare occurrence
Bowhead whale	Western Arctic	<i>Balaena mysticetus</i>	Endangered	AK groundfish fisheries are NLAA.	Bowheads extremely unlikely to occur where groundfish fisheries are prosecuted
Fin whale	Northeast Pacific	<i>Balaenoptera physalus</i>	Endangered	AK groundfish fisheries are likely to adversely affect.	Evidence of gear entanglement and whale occurrence in both BSAI and GOA where fisheries prosecuted.
Humpback whale	Western and Central North Pacific	<i>Megaptera novaeangilae</i>	Endangered	AK Groundfish Fisheries are likely to adversely affect	Evidence of take for various gear types
Right whale	North Pacific	<i>Eubalaena japonica</i>	Endangered	-AK Groundfish fisheries are likely to adversely affect species. -AK groundfish fisheries are NLAA proposed critical habitat.	Buoyed gears are entanglement threats in areas where whales gather. Fishing activities unlikely to affect PCE.
Sei whale	North Pacific	<i>Balaenoptera borealis</i>	Endangered	AK Groundfish fisheries are NLAA.	Very rare occurrence and no evidence of fisheries interaction

Listed Species	Population or DPS	Scientific Name	Status	Assessment Conclusion	Reason
Sperm whale	North Pacific	<i>Physeter macrocephalus</i>	Endangered	AK groundfish fisheries are likely to adversely affect	Evidence of interaction and take with GOA longline fisheries
Steller sea lion	Western Alaska DPS	<i>Eumetopias jubatus</i>	Endangered	AK groundfish fisheries are likely to adversely affect Steller sea lions and their designated critical habitat.	Competition for prey, removal of prey from critical habitat, incidental take
Steller sea lion	Eastern Alaska DPS	<i>Eumetopias jubatus</i>	Threatened	AK groundfish fisheries are likely to adversely affect Steller sea lions and their designated critical habitat.	Competition for prey, removal of prey from critical habitat, incidental take
Olive Ridley turtle	Pacific	<i>Lepidochelys olivacea</i>	Threatened/Endangered	AK Groundfish fisheries are NLAA.	Very rare occurrence and no evidence of fisheries interaction
Loggerhead turtle	Pacific	<i>Caretta caretta</i>	Threatened	AK Groundfish fisheries are NLAA.	Very rare occurrence and no evidence of fisheries interaction
Green turtle	Pacific	<i>Chelonia mydas</i>	Threatened/Endangered	AK Groundfish fisheries are NLAA.	Very rare occurrence and no evidence of fisheries interaction
Leatherback sea turtle	Pacific	<i>Dermochelys coriacea</i>	Endangered	AK Groundfish fisheries are NLAA.	Very rare occurrence and no evidence of fisheries interaction

**North Pacific Fishery Management Council  
Steller Sea Lion Mitigation Committee Meeting  
April 25-27, 2006  
Alaska Fisheries Science Center, Seattle**

**Minutes**

The Steller Sea Lion Mitigation Committee (SSLMC) convened at the Alaska Fisheries Science Center on April 25-27, 2006. Committee members present were: Larry Cotter (Chairman), Jerry Bongen, Julie Bonney, Sam Cotten, Ed Dersham, Kevin Duffy, John Gauvin, John Henderschedt, Frank Kelty, Dave Little, Steve MacLean, Max Malavansky, and Art Nelson. Also present were Bill Wilson and Chris Oliver (Council staff), Doug DeMaster and Lowell Fritz (NMFS AFSC), Sue Salvesson (NMFS SF), Kaja Brix and Shane Capron (NMFS PR), Jon Pollard (NOAA GC), Kristin Mabry and Scott Miller (NMFS AK Region staff), and Mel Morris (Alaska Board of Fisheries).

Committee members were introduced and members of the public attending the meeting were acknowledged. Mr. Cotter reported that Dr. Daniel Hennen has been appointed to the committee by NPFMC Chair Stephanie Madsen. Dan is a biometrician with the Alaska Sea Life Center. Mr. Cotter also noted that Frank Kelty has been appointed to replace Dustan Dickersen.

Chairman Cotter reviewed the agenda (attached), the work schedule for the coming several days, and Bill Wilson reviewed the handout materials provided to each committee member. A library of documents that the committee members will need during their work will be maintained at the Alaska Fisheries Science Center to minimize the need to transport heavy documents back and forth to future meetings (to be held at the AFSC).

Mr. Cotter suggested that following the May 16-18 meeting, the SSLMC will need to meet again to receive additional briefings, probably the last week of June. The dates for this meeting will be June 27-29; this meeting will begin at 8:30 am on June 27 and will be held at the AFSC.

Mr. Wilson discussed the Council's charge: to track the FMP consultation process and to call for and review proposals for regulatory changes, and make recommendations to the Council. The Committee discussed the proposal process, and were advised that the next several meetings are to provide information briefings for the Committee on scientific information on the ESA-listed species that will be subjects of the consultation; these briefings are organized around so that the updated information focuses on the principal hypotheses of factors that contributed to the decline in abundance of Steller sea lions in the North Pacific.

Dr. DeMaster discussed the trade off tool and what kind of input will be required from this Committee. The trade off tool would be used by the SSLMC to evaluate proposals in light of potential effects of each proposal on SSLs and their habitat. Mr. Cotter suggested that a subcommittee of the SSLMC might do the work to assemble the trade off tool, although the weighting factors would be developed by the whole committee. The trade off tool will be discussed in detail in a future meeting.



The Committee discussed the schedule for the process of reviewing proposals and how that will mesh with the schedule for development of the draft Biological Opinion (BiOp) and the trade off tool. It was generally agreed that a call for proposals should be made soon so that proposals can be reviewed and compiled prior to publication of the draft BiOp so that the Committee can be prepared to compare the content of the BiOp against the proposals received, thus saving time in what many consider to be an already ambitious schedule for completing the consultation.

Handout materials provided to each committee member included:

- The 2000 FMP level BiOp
- The 2001 project level (Atka mackerel, Pacific cod, and walleye pollock) BiOp
- The 2003 supplement to the 2001 BiOp
- The Endangered Species Act
- The Marine Mammal protection Act
- A synopsis of SSL research conducted at the Alaska Sea Life Center
- Schedules for the April 25-27 and May 16-18 SSLMC meetings
- November 7, 2005 memorandum on NMFS guidelines for application of the Adverse Modification standard under Section 7 of the ESA
- March 13, 2006 NMFS memorandum requesting assistance on the FMP consultation
- April 19, 2006 NMFS memorandum transmitting the Biological Assessment and request to reinitiate the FMP consultation

### Consultation Process Update

Shane Capron provided a status report on the FMP consultation. The Biological Assessment (BA) has been completed by NMFS SF and provided to NMFS PR (April 19, 2006 letter – handout). Once NMFS PR determines that the BA and accompanying documents are complete, this will start the consultation process. It is anticipated that all necessary information will be in hand at NMFS PR very soon, including the information requested in the NMFS PR letter of March 13, 2006. No change in schedule is anticipated at this time. The draft BiOp will then be prepared, with a target date for public review of the end of August 2006.

Sue Salvesson reviewed the findings in the BA and summarized the process for submittal of the BA to NMFS PR. Ms. Salvesson noted that NMFS SF concluded that the following ESA listed species are “likely to be adversely affected”(LAA) by prosecution of the GOA and BSAI groundfish fisheries (based on recorded injuries or mortalities during fishing activities): fin whales, humpback whales, northern right whales, sperm whales, and the eastern and western stocks of Steller sea lion. Ms. Salvesson explained the “soft trigger” of a LAA determination, which is defined as an adverse effect on an ESA-listed species as a result of an action and the effect is not discountable, insignificant, or beneficial. A LAA determination means that formal Section 7 consultation is required. The BA concludes, however, that no groundfish fishery jeopardizes the continued existence of any ESA-listed species nor adversely modifies or destroys designated critical habitat of

any ESA-listed species. Ms. Salveson also noted that the State of Alaska will participate in the consultation and that the State has expressed its desire that State parallel groundfish fisheries be included in the consultation. The Committee discussed the implications of this decision by the State and how other State fisheries, including State waters groundfish fisheries, might be affected (these will not be part of the consultation but will be addressed in the BiOp in its Cumulative Effects section).

The Committee discussed issues involved in protection for incidental take of a listed species, specifically provisions in Section 7 or Section 10 of the ESA.

Mr. Capron noted that the anticipated schedule for preparation of the draft BiOp (draft by late August) will potentially allow for an initial review by the Council at its October 2006 meeting; the SSLMC should have time to make an initial review prior to that October meeting. This review by the SSLMC will provide an opportunity to judge how much "room" there may be in changing current protection measures based on conclusions in the BiOp. The SSLMC can then take the period between October and December to make a call for proposals and then review the proposals against the findings and conclusions in the BiOp and make recommendations for further action to the Council at its December 2006 meeting. Some members believed that calling for proposals earlier would give the Committee more time to prepare for how they may be compared with the conclusions in the draft BiOp. The call for proposals process will be discussed by the Committee at its May meeting.

#### NMFS Guidelines for Adverse Modification

Mr. Capron reviewed the new guidelines for determinations of adverse modification of critical habitat recently issued by NMFS (memorandum from Dr. Hogarth dated November 7, 2005 - handout). These are interim guidelines until NMFS and the US Fish & Wildlife Service develop joint procedures for determining what constitutes adverse modification. Mr. Capron noted that the pending draft SSL Recovery Plan will provide guidelines for what will constitute recovery of the western and eastern stocks of SSL; these recovery standards will further assist the agency when making adverse modification analyses. This is a new process not previously utilized by NMFS.

The Committee discussed the implications of delisting of a currently-listed species. Mr. Capron noted that, even if delisted, the protection measures then in place for species such as the wSSL would likely remain in place since these measures would be viewed as contributing to the delisting; it would not seem logical to remove protections that enabled the agency to delist. In addition, it was noted that the ESA requires a status review five years following delisting to consider whether the delisting action was appropriate.

#### Federal Preemption

Jon Pollard reviewed the Magnuson-Stevens Act definitions of preemption found in Section 306(b). The SSLMC had previously indicated an interest in reviewing this process, although this is very unlikely and previously has been very rarely invoked in State waters off the U.S. coast.

## SSL Recovery Plan

Mr. Capron reviewed the status of the SSL Recovery Plan. The Recovery Team met for a final time in March 2006 and shortly thereafter a subcommittee of the Team redrafted the working draft of the Plan for final approval by the Team. The Team has approved that revised version, and the agency is now reviewing the document. NMFS will likely complete its review and approve it for public review before the June Council meeting. This will provide an opportunity for NMFS to present the Recovery Plan to the Council and allow for SSC and AP review as well. The SSLMC will then have the opportunity to review the plan, but not before the June Council meeting.

## Public Comment

Mr. Cotter provided an opportunity for members of the public to comment on material that was discussed during the day. Paul MacGregor questioned whether any past BiOps have been revised based on the new guidelines for analysis of adverse modification. Mr. MacGregor also asked if rehabilitation of habitat is a consideration in the process. Mr. Pollard noted that it is appropriate to consider rehabilitation of critical habitat, and this is routinely considered for salmon species in the Pacific Northwest. Mr. Capron also noted that it may be appropriate to consider rehabilitation of critical habitat as a mitigation strategy to compensate for losses of non-critical habitat in some cases. Dr. DeMaster stated that in a jeopardy analysis, the main issue is whether an action is doing something that is driving a species to extinction, while in an adverse modification analysis, the main issue is whether the action is doing something that hinders recovery of the species mediated through modification of critical habitat.

## SSL Population Status and Trends, Stock Structure, and Vital Rates

Lowell Fritz presented an overview of the status of the western and eastern stocks of SSL, changes in age-specific survival from mark-recapture (branding) studies, and an update on seasonal usage of terrestrial sites (haulouts and rookeries). See handout (or SSLMC web site) for slides presented. Mr. Fritz noted that analysis of branding data indicated that rates of survival of western stock juveniles is higher since 2000 than it was in the late 1980s, and currently may be similar to western stock rates from the 1970s (stable or decreasing slightly) and eastern stock rates from the 90s (increasing population). The Committee discussion included details of rookery and haulout counts in subregions of the western stock, and that five new rookeries are now identified and four rookeries appear to no longer be breeding sites and are likely used as haulouts at present. Discussion included how this new rookery/haulout structure might affect future analyses that might use a zonal approach. Mr. Fritz provided a summary list of the current rookeries and haulouts.

## SSL Population Modeling

Eli Holmes, NMML, presented the results of recent SSL population modeling based on time series of counts and age structure of SSLs in the central GOA from 1975-2004. Dr. Holmes fit a demographic model to the data time series by estimating changes in the rates

of juvenile and adult survival as well as reproduction (natality). The Committee discussed the terms “fecundity” and “natality”, and Dr. Holmes clarified that natality is the appropriate term in her presentation. Results suggest that the initial CGOA population decline (through 1987) was associated with a steep drop in juvenile survival, and smaller drops in adult survival and natality rates. Since 1987, juvenile and adult survivorship have been increasing (the increase in juvenile survival is supported by the analysis of the branding data) while natality has continued to decline, and may now be only 60% of what it was in the late 1970s. The decline in natality is reflected in the steep drop in the pup to nonpup ratio. While causes of these changes cannot be clarified with the model, Dr. Holmes listed changes in food supply, disease, and contaminants, and the Committee discussed predator effects on SSL behavior as potential factors. Dr. Holmes’ talk and copies of several relevant papers will be provided to the SSLMC and will be made available on the SSLMC web site.

### Killer Whales in the North Pacific

Paul Wade, NMML, provided an overview of killer whale population structure in the North Pacific including ecotypes, population abundance estimates by area, and population structure within ecotype based on genetic studies. Dr. Wade also presented information on fatty acids, contaminants, and stable isotope studies, all of which indicate there is a clear differentiation between mammal-eating (referred to as Transient (T) killer whales) and Resident (R) killer whales in the BSAI area. Dr. Wade reviewed data on T killer whale predation observations, movement patterns, and seasonal migration. He noted that the presence of bite marks caused by cookie cutter sharks provided strong evidence that at least some T killer whales were migrating south of the Aleutian Islands on a seasonal basis. Dr. Wade also provided summary data on potential effects of this ecotype on SSL populations, noting that there are lingering questions about what food sources sustain the known population of T killer whales in the North Pacific. Dr. Wade’s presentation as well as publications on relevant killer whale work will be provided to the SSLMC and made available on the SSLMC web site.

### Northern Right and Humpback Whales in the North Pacific

Phil Clapham, NMML, provided an overview of the population structure of northern right whales and humpback whales in the North Pacific. Dr. Clapham reviewed the available data on northern right whale declines and the current estimates of abundance. Dr. Clapham also reviewed the rationale for designating proposed critical habitat for this population in the GOA and BSAI. Dr. Clapham also reviewed data on humpback whale movement patterns, photo identification, genetic stock structure, and abundance estimates.

### Groundfish Stock Assessments for the GOA and BSAI

Jim Ianelli, AFSC, provided the SSLMC with an overview of the status of stocks of the target groundfish species of the North Pacific, with emphasis on the principal prey species for SSLs. Much of the information presented is available in the current Stock Assessment and Fishery Evaluation documents produced by the Council in early 2006. Dr. Ianelli focused primarily on Atka mackerel, Pacific cod, and walleye pollock stocks.

Discussion included data collection and fishery performance assessments, and how modeling produces estimates of spawning biomass, total biomass, and ABC for each groundfish species for each area. The Committee also discussed fishery effects on groundfish stocks, and how SSL protection measures affect some fisheries.

#### Foraging Energetics of Killer Whales and SSLs

Terrie Williams, University of California at Santa Cruz, presented an overview of her work on both killer whale and SSL energetics. This work focused on killer whale predation of other marine mammals in the North Pacific as well as SSL prey consumption, reproduction, and growth energetics based on laboratory (captive animal) studies and model predictions and calculations. Dr. Williams' work includes SSL seasonal metabolic costs for prey capture and reproduction, and the large cost of lactation. Dr. Williams believes that results from energetics studies can be helpful to the SSLMC as it considers how fisheries may affect SSLs in light of the role of killer whale predation in the North Pacific. She also offered her opinions on possible causes of the SSL decline, the role of nutritional stress and predation on the decline, and the potential role of fisheries; she also offered thoughts on recent suggestions of SSL natality decline. Regarding this last point, several participants in the meeting disputed her rationale. Two papers and a summary of her presentation will be provided to the Committee and made available on the SSLMC web site.

#### Laboratory Studies of Captive SSLs at the University of British Columbia

David Rosen with the UBC reviewed the work of his colleagues at the Vancouver Aquarium on captive SSL energetics. Dr. Rosen presented how laboratory manipulations are done and what responses are measured. Dr. Rosen also offered insights into the nutritional stress debate and its role in the SSL decline. His presentation was provided to the Committee and will be made available on the SSLMC web site.

#### **Handouts at this Meeting**

Bill Wilson will work with Kristin Mabry and Sue Salveson (NMFS AK Region) to develop a web-based repository of relevant documents that will be used by the Committee in future meetings and work sessions. It is anticipated that this web site will be completed prior to the May meeting of the SSLMC. In addition, it was agreed that several of the very large (over 10 MB) documents will be provided to Committee members on CD. More information on this effort will be forthcoming.

The Committee adjourned at 5:00 PM Thursday April 27. The next meeting starts at 8:30 AM on Tuesday May 16 and will continue through Thursday May 18, 2006, at the Alaska Fisheries Science Center, Seattle. The SSLMC also has scheduled a meeting at the AFSC for June 27-29, 2006.

Bill Wilson  
[Bill.wilson@noaa.gov](mailto:Bill.wilson@noaa.gov)



North Pacific Fishery Management Council  
**Steller Sea Lion Mitigation Committee Meeting**  
Alaska Fisheries Science Center, Seattle  
April 25-27, 2006

**AGENDA**

April 25 – 1:00 PM – 5:00 PM

1. Introductions and Opening Remarks, Announcements, Orientation of New Members (Cotter)
2. Minutes of Last Meeting, Update from April Council Meeting, Discussion (Wilson)
3. Brief Overviews of 2000 FMP BiOp and 2001 BiOp and Supplement (Capron)
4. NOAA Guidelines on Adverse Modification of Critical Habitat (Capron, Pollard)
5. Overview of MSA Section 306(b) (Pollard)
6. Update on SSL Recovery Plan (Capron)

April 26 – 8:30 AM – 5:00 PM

7. Updates on SSL and Other Marine Mammal Research:
  - a) NMML SSL Program (Fritz)
  - b) NMML Whale Programs (Wade, Clapham)

April 27 – 8:30 AM – 5:00 PM

8. Updates on SSL and Other Marine Mammal Research (Continued):
  - a) GOA and BSAI Groundfish Stock Assessments (Ianelli)
  - b) UCSC Marine Mammal Energetics Programs (Williams)
  - c) UBC SSL Energetics and Nutrition Studies (Rosen)
9. Process for Developing a Trade-off Tool (DeMaster)
10. Action Items, Closing Remarks (Cotter)

Public comment periods will be provided during the meeting.

Contact Bill Wilson at the Council offices if you have questions (907-271-2809 or [bill.wilson@noaa.gov](mailto:bill.wilson@noaa.gov))

DRAFT

**North Pacific Fishery Management Council  
Steller Sea Lion Mitigation Committee Meeting  
May 16-18, 2006  
Alaska Fisheries Science Center, Seattle**

**Minutes**

The Steller Sea Lion Mitigation Committee (SSLMC) convened at the Alaska Fisheries Science Center on May 16-18, 2006. Committee members present were: Larry Cotter (Chairman), Jerry Bongen, Julie Bonney, Sam Cotten, Ed Dersham, Kevin Duffy, John Gauvin, John Henderschedt, Dan Hennen, Sue Hills, Frank Kelty, Terry Leitzell, Dave Little, Steve MacLean, Max Malavansky, and Mel Morris (alternate for Art Nelson). Also present were Bill Wilson (Council staff), Doug DeMaster (NMFS AFSC), Melanie Brown (NMFS SF), Kaja Brix and Shane Capron (NMFS PR), John Lepore (NOAA GC), Kristin Mabry and Scott Miller (NMFS AK Region staff), and several other NMML and AFSC staff.

Committee members were introduced and members of the public attending the meeting were acknowledged. Mr. Cotter introduced Dr. Daniel Hennen from the Alaska Sea Life Center who has been appointed to the committee by NPFMC Chair Stephanie Madsen. Mr. Cotter also noted that Frank Kelty has been appointed to replace Dustan Dickersen.

Chairman Cotter reviewed the agenda (attached), the work schedule for the coming several days, and Bill Wilson reviewed the handout materials provided to each committee member. The minutes from the last meeting were approved. Kristin Mabry presented a CD that contains the presentations, reports, and links to other information from the last SSLMC meeting as well as the interactive maps of SSL protection measures and the software required to view the maps. Ms. Mabry noted that this information also will be available through a SSLMC web site maintained at NMFS Alaska Region and linked through the Council's web site. New CDs will be issued to SSLMC members as new information is obtained; each will be marked with a version number. Kristin is available to answer questions at [kristin.mabry@noaa.gov](mailto:kristin.mabry@noaa.gov).

Mr. Cotter noted that he has appointed a subcommittee to work on an impact evaluation tool; this group will meet June 26 to work on the tool. The tool will be a way to mathematically express the effects of fishing activity on SSLs by gear type, season, and geographic location using weighting factors for each variable. Another option would be a tool using a zonal approach for weighing potential effects. Development of a straw man tool will be started by the subcommittee but will be fully developed by the entire SSLMC. The SSLMC discussed alternative approaches to evaluating tradeoffs and the kinds of data that may be required. The next meeting of the full SSLMC is June 27-29 at the AFSC in Seattle. Agendas for both meetings were handed out.

The remainder of the meeting largely consisted of presentations related to the work of the Committee. Presenters handed out documents, copies of their PowerPoint presentations, or referenced publications that might be of interest to the Committee. Those documents will be added to the CD and will be posted on the SSLMC's web site. That web site is

DRAFT

under construction and will be tied to the Council's web site and housed on the NMFS web site server.

Melanie Brown provided an overview and update to the FMP consultation process. Ms. Brown noted that the consultation on sea otters is proceeding with the U.S. Fish & Wildlife Service and on salmon with the NMFS Northwest Region. Ms. Brown also reported that the Council's contractor recently completed work on a table that NMFS will use to identify endangered salmon ESUs in the salmon bycatch in Alaskan groundfish fisheries.

### SSL Literature Compendium

Dr. Tom Loughlin presented a summary of the recently-completed compendium of SSL literature. Drs. Loughlin and Jack Tagart were contracted by the Council to produce an annotated bibliography and summary of research completed since the last FMP level consultation. Dr. Loughlin summarized the kinds of literature that has been published since 2000 in the following theme areas:

1. SSL life history (physiology/anatomy, genetics, reproduction and behavior, and miscellaneous studies)
2. SSL foraging (diet, searching for prey, models and hypotheses)
3. SSL vital rates
4. Fish assessment and fisheries
5. Ecosystems
6. Other anthropogenic effects
7. Predation
8. Disease
9. Contaminants
10. Management (no papers are in this category – not part of the contract)
11. Communications

The compendium will be available on the Council's web site, the SSLMC web site, and the next version of the SSLMC's informational CD. Dr. Loughlin went through the main issues covered in each theme area and answered questions. Mr. Cotter noted that the SSLMC might wish to provide comments on the compendium to the Council.

### SSLMC Proposal Process

Mr. Wilson provided the SSLMC with a draft outline of the proposal process that might be used to obtain proposals for change in fishing regulations that might affect SSLs. The Call for Proposals would involve asking the public to suggest changes in regulations and to provide a clear rationale for the proposed change as well as potential impacts, alternatives, supporting data, and other information. The SSLMC generally felt that we should not ask for suggestions for offsetting measures for each proposal although that would be an option on the Call for Proposals form.

Later in the SSLMC meeting, the committee agreed that a Call for Proposals should be issued soon. The Committee recommended to the Council that at their June meeting the

## DRAFT

Council approve calling for proposals to change regulations related to SSL protection measures. Proposals would be due in early August. Copies would be sent to Committee members as soon as possible for their review prior to the next meeting. The recommended schedule is presented at the end of these minutes.

### Public Comment

Mr. Cotter invited the public to ask questions or comment on the information presented at this meeting so far. Discussion focused on the recent Council actions on Pacific cod fishery management and how those changes in future regulations would be considered in the consultation. Shane Capron reported that the agency would not consider future regulations for changes in the FMPs as part of the proposed action since they have not been put into effect yet. Only those management measures that are in effect at the time the draft Biological Opinion is prepared would be considered part of the proposed action.

### National Marine Mammal Laboratory SSL Program

Dr. Brian Fadely summarized the information collected by NMML SSL research programs involving SSL telemetry and movement and dive patterns. He also summarized recent SSL diet studies. The telemetry program has gathered information on SSL movements relative to rookeries and haulouts and to the nearest land, by season (summer or winter), and by region. Data were provided to the committee in handouts. Approximately 14,400 data points are available for analysis. The data have been analyzed to show differences in SSL movement and diving behavior by region, SSL age class, season, and correlation with oceanographic features.

New diet data from scat sampling has now been added to previous data for an analysis completed for the consultation (covering the years 1999-2005). The more recent data are very similar to the previous data. However, in recent scat samples halibut has been observed, capelin and sand lance are more prevalent in the GOA, and salmon also appear more frequently. Primarily adult pollock and Atka mackerel, as well as adult Pacific cod, are consumed when these dietary items appear in scat samples.

### Alaska Sea Life Center SSL Program

1. Dr. Jo-Ann Mellish provided an overview of the Sea Life Center's SSL programs. These include studies of prey and predation, instrument development, long term captive animal research, disease and pollution studies, studies of SSLs in Russia, forage fish studies, the Chiswell remote site program, and the transient juvenile research program. Dr. Mellish provided details on the transient juvenile study program. This program involves capture of wild SSLs, short-term studies of body condition and other parameters in a quarantine facility, and release of these animals (with transmitters) back to the wild.
2. Dr. John Maniscalco presented the Sea Life Center's remote monitoring program on the Chiswell Islands. Remote cameras allow individual and group SSL monitoring in real time continuously during spring through fall months during daylight hours. Video is transmitted to the Center in Seward and technicians monitor SSLs for information on pupping, foraging, maternal care, predation, and disturbance. Dr. Maniscalco also

DRAFT

presented data from Dr. Craig Matkin's transient killer whale studies. These data indicate that the diet of transients along the U.S. west coast includes up to 15% SSLs; transients in the western Aleutians have no recorded SSLs in their diet during spring months while transients in this area in summer have about 14% SSLs in their diet. Dr. Matkin concludes based on current data that transients in the areas he has studied consume few SSLs.

Discussion continued on the apparent disparity in data from various SSL and killer whale researchers. Some research suggests that transient killer whales potentially consume large numbers of SSLs while other researchers indicate SSLs form but a small proportion of their diets. Although diets vary considerably by season, area, and transient killer whale group, SSLMC members indicated their confusion about the apparent conflicting data.

3. Dr. Dan Hennen presented an overview of several studies at the Sea Life Center or from his former work at Montana State University. Much of this work focuses on the nutritional aspects of the junk food hypothesis for the SSL decline. Captive SSL studies of diet and body condition suggest SSLs eat more if the food item is of lower quality. SSLs appear to be plastic in their feeding; they will consume a variety of prey items and feed opportunistically.

Dr. Hennen also reported on studies of pollock proportions in SSL diets and effects on growth and condition; these data suggest no differences in body condition from a 100% pollock diet versus a mixed diet.

Finally, Dr. Hennen presented some of his work on the SSL decline and potential effects from the BSAI groundfish fisheries. These data are presented in his PhD thesis. Prior to 1991, there is a negative correlation between the SSL decline and fishing activity, and a positive correlation after 1991 suggesting a positive effect of increasing protection measures implemented after that year.

Discussion included the likely major effect on the SSL population from the prohibition of shooting imposed in 1992.

4. Sarah Norberg presented studies of SSL prey and the energy used by SSLs to capture prey. She also noted that the Sea Life Center is involved in studies of killer whale predation on SSLs. Ms. Norberg reported on SSL research techniques used at the Center including body acceleration meters, foraging videography, capture buoys, captive SSL studies in Russia, and surgically implanted tags (that will stay with the SSL after molting).

5. Matt Meyers discussed SSL contaminants studies which focus on uptake and concentration of PCBs and DDT in SSL body tissues. He reported that some SSLs have fairly high levels of PCBs suggesting these animals obtained these body loads from prey items that have accumulated PCBs and that SSL PCB levels are high enough to suggest some potential concern over effects on SSL health. PCB levels are higher in Russian SSLs. Mr. Meyers discussed potential effects of higher PCB levels on SSL vital rates, reproduction, etc.

6. Jason Waite presented information on SSL abundance and trends in Russia. Some areas are currently in decline, while other areas show increasing trends in SSL abundance. The Sakhalin area has experienced a particularly steep rate of increase in recent years. Mr. Waite noted possible effects on SSL abundance in the Russian population including past Japanese harvest, incidental take in Russian herring fisheries, and natural causes. He also reported on biosampling, migration and movement studies using branding techniques, and diet studies using scat analyses.

University of British Columbia and NPUMMRC

Dr. Andrew Trites from UBC presented a suite of research summaries focusing on the various hypotheses for the SSL decline. The North Pacific Universities Marine Mammal Research Consortium, administered at UBC, includes UBC, UA, OSU, and UW. Dr. Trites presentation focused on two main areas of investigation: a summary of knowledge of the hypotheses for the SSL decline, and some ongoing and new research initiatives.

Dr. Trites noted that the junk food hypotheses, which initiated much of the SSL research in the past years, has evolved over time. Currently, that hypothesis suggests that pollock are a poor diet for yearling SSLs, less poor for older juveniles, and have little to no effect on adult SSLs. SSL diets vary, but in some areas SSLs have diet preferences. Dr. Trites also reported on his population viability analyses (PVAs) that model potential for extinction; PVA studies suggest that the western Aleutians continue to be of concern for future viability if trends continue into future decades while other areas such as the eastern Aleutians do not show these trends.

Dr. Trites reported on the captive SSL research at the Vancouver Aquarium including studies of the nutritional value of various dietary elements, effects of pregnancy and lactation on SSL condition, and weaning studies. Dr. Trites reported on a recent paper submitted for publication that suggests that a changing climate regime in the North Pacific since the late 1970s could be a major reason for a change in ocean conditions and in turn effects on SSLs and other marine organisms. Bottom-up forcing mechanisms may have had a large effect on SSLs and, in a declining trend, making the SSL populations more susceptible to larger effects of killer whale predation. Dr. Trites notes that this area is where he intends to continue research.

Discussion continued on the role of predation in the SSL decline. Dr. Trites suggests that when the SSL population is high, killer whale predation may not be particularly significant, but at low population size, such predation may be significant. He recanted that ocean climate is likely the driving force behind the SSL decline. Discussion also focused on the effects of shooting on the SSL decline. While this is an important part of a PVA, Dr. Trites noted that obtaining reliable data is difficult but that perhaps this could be re-examined and new analyses conducted.

Dr. Trites reported on some new areas of investigation. For example, SSL haulouts appear to be used for copulation and thus may merit closer study and be considered areas



DRAFT

susceptible to disturbance during the early breeding season. Other areas that the Consortium is studying or focusing research effort on include:

- Stress hormones (e.g. cortisol in SSL feces)
- Energy density of diets over time
- Fine scale foraging
- At-sea behavior using real time telemetry
- Observational work (e.g. UBC Steller Watch program)
- Killer whale diet specialization
- Captive SSL studies of prey quality, blood chemistry, thermoregulation
- Open water SSL bioenergetics
- Blubber fatty acid analysis
- DNA in SSL scats to identify diet preferences
- Focused studies of fishery overlap with SSLs and modeling of competition for prey, effects of fishery management alternatives, economic effects of management alternatives
- SSL tag development
- Information dissemination, publications

#### Alaska Department of Fish and Game SSL Program

Dr. Lorrie Rea presented an overview of ADF&G's SSL monitoring and research programs. ADF&G's work concentrates in southeast Alaska and the eastern SSL stock. Dr. Rea presented program overviews on SSL population dynamics, physiology, and foraging ecology.

The State's SSL population studies include aerial surveys and brand resighting. Site-specific research focuses on Lowrie, Forrester, and other islands that are habitat for the eSSL. Dr. Rea presented data for eSSLs on reproduction rates, weaning, pup survival, and other information including entanglement observations. Overall, these data suggest that the eSSL population is healthy and may be reaching carrying capacity of its habitat. Dr. Rea noted that in Glacier Bay there is some overlap of the eSSL and wSSL and some interbreeding of these stocks has occurred there.

Dr. Rea noted that the physiological studies have focused on body condition, health, and diet to help understand what constitutes nutritional stress. Studies include age determination, fatty acid analysis (blubber), stable isotope studies of diet elements and SSL tissues, and other physiological measures of SSLs nutrition.

SSL diving studies include SSL telemetry work and investigations of diving physiology (blood chemistry). Foraging trip duration studies involve measurement of time at sea, frequency of diving, dive depths, day/night foraging differences, and individual SSL variation in these parameters.

Dr. Rea also reported on studies of contaminants and diseases, primarily in the eSSL population, including work on heavy metals, PCBs and DDT. Work also includes SSL immune responses to contaminants exposure, and necropsy studies for disease agents and

## DRAFT

parasites. Hookworms are highly prevalent in SSL pups under 5 months of age. While hookworm prevalence is high in the eSSL population, there are little data for the wSSL; future work will include more sampling in the wSSL population.

### SSLMC Discussion

The Committee took a break and during a working lunch discussed initial impressions of the information heard so far. The following comments were made:

- Some suggested that much SSL research since 2000 has been in some areas where the concerns over SSL declines are not as prevalent, such as in southeast Alaska, Prince William Sound, and Russia. Reasons for this work include the ease of permitting in Russia, the need for comparative data between the eSSL and wSSL populations, and the Exxon Valdez oil spill. Some suggest more emphasis in current and future SSL research should be in the western Aleutians or other sub areas where the decline continues.
- It seems that there is increased importance to SSLs in the close-to-shore zones around rookeries and haulouts. Areas further away seem to be viewed as less critical, although there is seasonal variability. Dr. Hennen noted that in his work commercial fishing in the 10 to 20 n mi zones had the strongest correlations to the SSL decline.
- Data seem to show that SSLs in the western area are healthy, at least as healthy if not more healthy than animals in the eSSL area, but yet productivity of the wSSL is lower. This raises a question – how to craft protection measures appropriate to each area.
- Some suggest that a review of the archeological record for ancient SSL harvests in Native middens could shed helpful light on the SSLMC's work process. The Aleutians East Borough is doing such work, and will contact the SSLMC for a possible future presentation. Herb Mischener will be the contact. It was noted that the Aleut word "cod" means the fish that were not there – suggesting variability in abundance of this species in historic times.
- How will the SSLMC use the large amounts of information that is now available. And what will be the process for judging how the conclusions that will be presented in the upcoming draft Biological Opinion are in line with this information. The SSLMC will work to craft SSL protection measures using this new information, but how will the Committee use the draft BiOp in concert with this new information. Perhaps some feedback or synthesis of this information could be obtained from experienced researchers – ad guidance to this Committee. Some believe that a senior SSL scientist would be helpful in guiding the Committee's future work.
- Mr. Cotter noted that the new information we receive will form the basis and justification for the recommendations this Committee develops. He also noted, however, that it would be helpful if NMFS PR could provide some feedback at this stage in the process as to how this new information may affect future decision making.
- Dr. DeMaster provided some summary comments:

1. The draft SSL Recovery Plan will have a synthesis of information and will be helpful in informing the Committee on the agency's view of the new information
2. The draft BiOp will integrate new information as it re-examines existing fisheries and appropriate SSL protection measures
3. The Fishery Interaction Team studies have provided valuable information on fishery effects on the SSL prey fields
4. New information on SSL weaning suggests that it occurs over a 2 to 3 year period of time, and coincides with the pup's birthday, and thus the seasons of weaning is now viewed as the May-July period as opposed to the previous concerns over the January-March period. Perhaps this will affect our view of what seasons may be more stressful to weaning pups.
5. Available information suggests that the eSSL may be near carrying capacity of its habitat. The draft SSL Recovery Plan will recognize this and provide criteria for possible down listing or delisting of the eSSL and wSSL.
6. The 2003 BiOp Supplement evaluated the effects of SSL conservation measures with data on zonal catch rates. Updating these data may be helpful in developing the tradeoff tool (impact evaluation tool).
7. New publications from the Consortium on chronic nutritional stress, and the Springer et al. model, collectively provide alternative models or mechanisms for the SSL decline.
8. The Loughlin and Tagart SSL literature compendium provides a synthesis of scientific publications since 2000 in the 11 theme areas that correspond to the hypotheses for the SSL decline; this review will help inform the Committee as it proceeds with its work.

The Committee discussed how to deal with the ESA required burden of proof issue, and how this might guide the Committee's future work. John Gauvin suggested that the Committee should focus its efforts on defining fishery effects on localized prey fields; the focus should be to determine to what extent fishing disadvantages SSLs as opposed to more broad attempts to determine what caused the SSL decline.

The Committee also suggested including temporal effects of fishing in the tradeoff tool (so that the seasonal split issues might be revisited).

Terry Leitzell noted that the Committee may be able to change the mix of SSL protection measures yet retain the same level of protection. Seasons might be shifted, splits changed, etc. in such a manner as to maintain a level of protection necessary for SSLs based on the new scientific information.

The Committee also discussed whether economic information might be needed.

#### Fishery Interaction Team Study Update

Dr. Libby Logerwell, AFSC, presented an overview of the Fit program. Her presentation summarized several studies of fishing effects on SSL prey – Pacific cod, pollock, and Atka mackerel.

## DRAFT

The pollock studies have occurred near Kodiak in Chiniak and Barnabas Troughs. One area is a control area (no fishing) and the other a treatment area (fishing allowed). The experimental design requires pollock surveys before and after fishing in both areas to determine if fishing has caused reductions in pollock biomass. Previous studies resulted in equivocal findings, and the experiment will be repeated in three future years to obtain additional data.

Dr. Logerwell reported on the opportunistic pollock acoustic data collection efforts by commercial fishing vessels in the southeastern Bering Sea. For the years 2002 – 2006, vessels will collect acoustic data on pollock schools before and after fishing. The data will be evaluated by AFSC scientists to determine if any localized depletion can be observed in these data sets.

The FIT has conducted a Pacific cod study near Cape Sarichef. This was to study the effects of trawling on abundance of cod and the effectiveness of trawl closures around SSL rookeries in the area. The work involved tagging cod and then recapture of tagged cod inside and outside closed areas before and after commercial cod fishing. The findings suggest there is no effect of fishing. The tagging study also showed cod move considerable, and this is likely the reason for no fishery effect noted. This study will shift to work on cod movement patterns.

The FIT also studies Atka mackerel movement and trawl exclusion zones in the Aleutians. The issue was whether such exclusion zones were effective in maintaining Atka mackerel prey fields for SSLs. The study involved tagging mackerel and recapturing fish inside and outside exclusion zones in several areas in the Aleutians. Results showed Atka mackerel moved into and out of these zones with no distinct pattern noted. In some areas movement in was higher than movement out; yet in other areas the reverse was noted. Bathymetric features in these areas may have an effect. This study will continue with tag releases to study Atka mackerel reproduction and feeding behavior.

### Testing the Sequential Megafaunal Collapse Hypothesis

Dr DeMaster presented an overview of the DeMaster et al. (2006) paper that refutes some of the assumptions and findings in the Springer et al. (2005) megafaunal collapse paper. Dr. DeMaster pointed out the key assertions in the paper, and then summarized data that were counter to some of these assumptions. He and his coauthors noted that the Springer et al paper made some assumptions not supported by available data: whale biomass during the decline was reported from catch data, not biomass data; many species of large whales did not decline but rather increased in that period or were stable; available data suggest that large whales do not constitute a large proportion of killer whale diets; data on harbor seal declines are very minimal and possibly incorrectly reported; the decline of harbor seals, SSLs, and fur seals was not sequential but rather concurrent and sequential mixed; SSLs have shown signs of nutritional stress during the period reported by Springer et al. which is inconsistent with a predation-caused decline. DeMaster et al. suggest alternative hypotheses: perhaps the impacts of killer whales on pinnipeds and sea otters was initiated from the recovery of gray whales which offered a new large food source that induced the killer whale populations to increase in numbers and expand their

DRAFT

predation behavior; or perhaps the carcasses from whaling offered an abundant food source for killer whales with consequent effects as noted above; or perhaps multiple factors were involved.

### State of Alaska Groundfish Fishery Management Program

Herman Savikko from ADF&G reviewed the State's groundfish fishery management program. The State manages fisheries in four management areas (three areas currently have fisheries) and uses such measures as logbooks, catch accounting, biomass estimation, tag return awards, and other regulatory measures to aid in managing these fisheries. Most areas have Guideline Harvest Limits (GHLs), trip limits, bycatch caps, and reporting requirements. Some fisheries are under limited entry systems; some have observer requirements.

### SSLMC Discussion of Schedule and Future Work

Mr. Cotter reviewed a suggested approach for the Committee's future work. This would involve the following steps:

- Recommend to the Council during their upcoming June meeting that a Call for Proposals be issued. Proposals would be due in early August.
- The SSLMC meets August 22-24 to review and categorize proposals. Proposal makers would present their proposal and substantiating data if they prefer to do so although this would be optional to the proposal makers. The Committee would make an initial review of each proposal and identify additional information it will need; request information as needed from the proposal makers or from the AFSC or other data source. If the draft BiOp is available, conduct an initial review.
- The SSLMC meets September 20-22 to make a detailed review of proposals including the additional data requested. Draft a package of recommended proposals for Council review. Review the draft BiOp if not available until now; prepare comments and recommendations for the Council.
- The SSLMC meets October 24-26 to consider the recommendations from the Council and further refines proposals. Prepare the preferred package for NMFS review (PR).
- After NMFS PR review, SSLMC meets to consider NMFS comments, modify the proposal package, or make other recommendations for Council action in December. This SSLMC meeting could occur the day before the Council's December meeting.

The Committee discussed the need for defining the overall goals of the Committee's work – the “rules of engagement” that will guide its work. What can the Committee do or not do; what are the constraints. Mr. Cotter suggested the Committee do this at their June meeting.

Dr. Sue Hills noted that she intends to communicate with her fellow SSC members. She will obtain some initial feedback and guidance from the SSC on the tradeoff tool; she will do this prior to the June 26 tradeoff tool development subcommittee meeting. Dr. Hills

DRAFT

will seek advance thoughts and concerns that will help the Committee prepare the tradeoff tool.

Adjourn

The Committee adjourned at 4:30 PM Thursday May 18. The next meeting will be at the AFSC on June 27-29, although June 30 will be included in the schedule in case additional time is needed by the Committee. The subcommittee of the SSLMC working to develop a straw man tradeoff tool will meet June 26 at the AFSC.

Bill Wilson  
[Bill.wilson@noaa.gov](mailto:Bill.wilson@noaa.gov)



DRAFT

North Pacific Fishery Management Council  
**Steller Sea Lion Mitigation Committee Meeting**  
Alaska Fisheries Science Center, Seattle  
May 16-18, 2006

**AGENDA**

May 16 – 8:30 AM – 5:00 PM

1. Introductions and Opening Remarks, Announcements (Cotter)
2. Minutes of Last Meeting, Committee Web Site/CD, Discussion (Wilson, Mabry)
3. Impact Evaluation Tool Development (Cotter, DeMaster)
4. SSLMC Call for Proposals, Process & Schedule (Wilson, Cotter, All)
5. Update on BA, Species Consultations (Brown)
6. Compendium of SSL Literature (Loughlin)
7. Updates on SSL and Other Marine Mammal Research:
  - a) NMML SSL Telemetry, Diet Studies (Fadely, Gelatt)

May 17 – 8:00 AM – 5:00 PM

8. Updates on SSL and Other Marine Mammal Research (Continued):
  - b) Sea Life Center Marine Mammal (SSL emphasis) Programs (Mellish)
  - c) Vancouver Aquarium and UBC Marine Mammal (SSL emphasis) Programs (Trites)

May 18 – 8:30 AM – 5:00 PM

9. Updates on SSL and Other Marine Mammal Research (Continued)
  - d) ADF&G SSL Programs (Rea)
  - e) AFSC Fishery Interaction Team Program (Logerwell)
10. Overview of State of Alaska Groundfish Fisheries (Savikko)
11. Other Presentations TBA
12. Action Items, Closing Remarks, Adjourn (Cotter)

DRAFT

Public comment periods will be provided during the meeting.

Contact Bill Wilson at the Council offices if you have questions (907-271-2809) or [bill.wilson@noaa.gov](mailto:bill.wilson@noaa.gov).

**COMPENDIUM  
OF  
STELLER SEA LION RELATED RESEARCH,  
2000-2006**

**Final Report**

Prepared by:

Thomas R. Loughlin, Ph.D  
TRL Wildlife Consulting  
17341 NE 34th Street  
Redmond, WA 98052  
[trlwc@comcast.net](mailto:trlwc@comcast.net)

and,

Jack V. Tagart, Ph.D.  
Tagart Consulting  
7247 105<sup>th</sup> Ave. SW  
Olympia, WA 98512  
[jtagart@aol.com](mailto:jtagart@aol.com)

On behalf of

Chris Oliver, Executive Director  
North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Ave., Suite 306  
Anchorage, AK 99501-2817

Contract # 2005-02

May 15, 2006

## I. Introduction

On November 29, 2005, Chris Oliver, on behalf of the North Pacific Fishery Management Council, entered into a contract with Thomas R. Loughlin, TRL Wildlife Consulting, and Jack V. Tagart, Tagart Consulting, for the purpose of constructing a compendium of Steller sea lion (SSL) related research in the North Pacific. The objectives of the project were to: 1) identify all relevant SSL related research conducted from the year 2000 to 2006, including gray literature; 2) compile brief (one to two page) summaries of each research project; and 3) synthesize these various research findings into major (thematic) categories with attendant summary results.

## II. Methods

A working bibliography of SSL related research papers published between 2000 and 2006 was compiled from existing summaries of SSL research, through literature search, and by means of personal interviews and correspondence with sea lion researchers. We contacted researchers known to have received SSL funding and solicited copies of papers that were either completed and published, in press or in review. In most cases we obtained a pdf file or paper copy of the published report.

The working bibliography was partitioned into 11 thematic categories (borrowed from the NMFS/AFSC):

1. **Life History** - Investigations of the life history of SSLs, including all aspects of ontogeny (e.g., weaning process, molt, growth) and reproduction. Studies of behavior are included as a sub-theme since the age and sex of the studied individuals are central to their behavior.
2. **Foraging** - Studies of the foraging ecology of juvenile and adult SSLs. This includes all aspects of foraging, including what is eaten (food habits and diet), the costs incurred in locating and obtaining prey (bioenergetics), and differences in habitat use by juveniles and adults (habitat use).
3. **Vital Rates** - All studies related to population assessment (both counting of animals and assessment of their condition), reproductive rates, and survival/mortality rates (e.g. branding studies). Modeling studies, such as the creation of a new life table, would also fall under this theme. Many of these studies supply baseline information necessary to address all of the hypotheses/questions.
4. **Fish Assessment and Fisheries** - Prey or fish surveys, along with any studies of the impacts of fisheries on either large scales (ecosystem-wide) or small spatial/temporal scales.
5. **Ecosystems** - Any study dealing with bottom-up processes in the ocean and how changes in them might affect the prey field for SSLs. There are two sub-themes: large scale (ecosystem-wide) studies and those addressing ecosystem processes at small spatial/temporal scales.
6. **Other Anthropogenic Effects** - Any studies of the effects or quantification of subsistence hunting, intentional shooting, incidental take, or the residual effect of harvests and bounties on the SSL population..

7. **Predation** - Killer whale and shark predation are sub-themes under this general research theme. These would include all studies whose primary focus is addressing questions pertaining to predation as well as killer whale and shark assessment and ecology in Alaska.
8. **Disease** - Studies of sea lion diseases (including parasites) are included in one of two sub-themes, which evaluate the impacts of disease on: 1) individual sea lion health, and 2) the population of sea lions as a whole (population-level assessment).
9. **Contaminants** - Similar to sea lion disease studies, contaminant studies were also placed into one of two sub-themes depending on the scale at which contaminant effects were analyzed: 1) assessment of the effects of contaminants on the health of individuals (individual health assessment), and 2) assessment of the effects of contaminants on sea lion habitats (environmental-level effects), and how this could reduce sea lion survival or births.
10. **Management** - Projects under this theme involve funding for meetings to implement regulations (c.g., NPFMC), for independent reviews of actions, and for analysis of economic impacts of actions. Reviews address the scientific and legal information available and required to answer some or all of the questions posed, while other projects inform decisions made by managers.
11. **Communications** - Communication of ideas and information both among researchers (coordination) and between researchers and the interested public (outreach) are the principal goals of projects under this theme. Forms of communication considered include symposia, publishing of scientific literature, and web-based content.

We classified each referenced citation into one or more of the above thematic categories. For Theme's 1-9, the classified references were annotated and a summary of findings was prepared. For Themes 10 and 11, we provide a list of references but no annotations or summaries.

### III. Results

Our list of references includes 754 primary citations, and 59 citations in a separate appendix (Appendix 3). Included in the list are journal articles, progress and technical reports, contract reports, proceedings of conferences and symposia including conference abstracts and posters, books, thesis and other manuscripts. More than 50% of the articles were written since 2004 (Table 1, Figure 1). The majority of the citations are classified in three themes: Life History, Foraging, and Vital Rates (Table 2). With the inclusion of abstracts, posters, and unpublished manuscripts there is substantial redundancy among the citations. Our citation list is attached as Appendix 2 of this report.

Due to the number of citations and range of content in the Life History and Foraging themes we divided the content into sub-themes and prepared separate summaries for each. Life history is divided into four sub-themes: Physiology/Anatomy, Genetics, Reproduction and Behavior, and "Sundry" (a catch all category). Foraging is broken into three sub-themes: Diet, Searching, and Models.

The annotated citations and thematic summaries are presented in Appendix 1. Annotated citations may occur in more than one theme dependent upon the breadth of discussion in the paper. Readers are cautioned that where the citation is repeated an annotation may be carried over from theme to theme or could be customized for the specific theme. As annotators, we attempted to report the content of the published paper without interpretation of the results, i.e., to the extent practicable we

avoid commenting on the merit of the arguments presented in the papers. By necessity we do limit our discussion of content in the thematic summaries and in so doing may be guilty of some interpretation.

To facilitate an inspection of the citation list, a companion Excel spreadsheet is included. For each citation, the spreadsheet provides a classification by theme, literature type, and archive format (pdf or paper), year published, and first author for the paper. The spreadsheet is built to take advantage of the Excel Auto Filter utility. Policy makers and researchers may find this tool useful as a quick reference guide. A companion CD containing collected pdfs is also included with this report. A set of paper copies of published reports was provided to the Council.

#### **IV. Acknowledgements**

For help in guiding this project or for providing citations we acknowledge Douglas DeMaster, Tom Gelatt, Heather Higgins, Sonja Kromann, Chris Oliver, Lorrie Rea, Robert Small, Andrew Trites, Bill Wilson, and Kate Wynne.



**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR PART 223**

[I.D. 041706C]

RIN 0648-AU10

**Sea Turtle Conservation; Public Hearing Notification**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of public hearing.

**SUMMARY:** The National Marine Fisheries Service (NMFS) is announcing its intent to hold a public hearing to inform interested parties of the proposed modifications to Federal regulations affecting pound net leaders in the Virginia Chesapeake Bay and to accept public comments on this action.

**DATES:** NMFS will hold a public hearing at the Double Tree Hotel Virginia Beach, on Wednesday, April 26, 2006, at 7 p.m., eastern daylight time.

**ADDRESSES:** The Double Tree Hotel Virginia Beach is located at 1900 Pavilion Drive, Virginia Beach, VA 23451 (ph..757-422-8900).

Written comments on this action may be submitted on this proposed rule, identified by RIN 0648-AU10, by any one of the following methods:

(1) E-mail:

[poundnetmodification@noaa.gov](mailto:poundnetmodification@noaa.gov). Please include the RIN 0648-AU10 in the subject line of the message.

(2) Federal eRulemaking Portal:

<http://www.regulations.gov>. Follow the instruction on the website for submitting comments.

(3) NMFS/Northeast Region Website:

<http://www.nero.noaa.gov/nero/regs/com.html>. Follow the instructions on the website for submitting comments.

(4) Mail: Mary Colligan, Assistant Regional Administrator for Protected Resources, NMFS, Northeast Region, One Blackburn Drive, Gloucester, MA 01930, ATTN: Sea Turtle Conservation Measures, Proposed Rule

(5) Facsimile (fax): 978-281-9394, ATTN: Sea Turtle Conservation Measures, Proposed Rule

**FOR FURTHER INFORMATION CONTACT:**

Pasquale Scida (ph. 978-281-9208), NMFS, One Blackburn Drive, Gloucester, MA 01930.

**SUPPLEMENTARY INFORMATION:** A proposed rule was issued on April 17, 2006 (73 FR 19675), which proposes revisions to current regulations. The

proposed rule would require any offshore pound net set in Pound Net Regulated Area I in the Virginia waters of the Chesapeake Bay to use a modified pound net leader from May 6 to July 15 each year. This action, taken under the Endangered Species Act of 1973 (ESA), responds to new information generated by gear research and aims to conserve sea turtles listed as threatened or endangered. Additional information on the justification for this action can be found in that proposed rule.

NMFS recognizes the need and importance to obtain public comment on the proposed action. In addition to the April 26 meeting announced in this document, NMFS is accepting written comments on the proposed action. Written comments on the proposed rule or requests for copies of the literature cited, the draft Environmental Assessment, or Regulatory Impact Review and Initial Regulatory Flexibility Analysis should be addressed to the Assistant Regional Administrator for Protected Resources, NMFS, One Blackburn Drive, Gloucester, MA 01930. Comments and requests for supporting documents may be sent via fax to 978-281-9394. Comments will be accepted via email at [poundnetmodification@noaa.gov](mailto:poundnetmodification@noaa.gov) and via the Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instruction on the website for submitting comments. The public comment period closes at 5 p.m., eastern daylight time, on May 1, 2006.

In preparing the final rule for this action, NMFS will fully consider the public comments received during the 15-day comment period (either in writing or verbally during the public hearing).

**Special Accommodations**

This meeting is accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Pasquale Scida, telephone 978-281-3928 x9208, fax 978-281-9394, at least five days before the scheduled meeting date.

**Authority:** 16 U.S.C. 1531 *et seq.*

**Dated:** April 19, 2006.

James H. Lecky,  
Director, Office Protected Resources, National Marine Fisheries Service.

[FR Doc. E6-6106 Filed 4-21-06; 8:45 am]

BILLING CODE 3510-22-S

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 229**

[Docket No. 060330090-6090-01, I.D. 021506B]

RIN 0648-AU19

**List of Fisheries for 2006**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

**ACTION:** Proposed rule.

**SUMMARY:** The National Marine Fisheries Service (NMFS) is publishing the proposed List of Fisheries (LOF) for 2006, as required by the Marine Mammal Protection Act (MMPA). The proposed LOF for 2006 reflects new information on interactions between commercial fisheries and marine mammals. NMFS must categorize each commercial fishery on the LOF into one of three categories under the MMPA based upon the level of serious injury and mortality of marine mammals that occurs incidental to each fishery. The categorization of a fishery in the LOF determines whether participants in that fishery are subject to certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements.

**DATES:** Comments must be received by May 24, 2006.

**ADDRESSES:** Send comments to Chief, Marine Mammal Conservation Division, Attn: List of Fisheries, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910. Comments may also be sent via email to [2006LOF.comments@noaa.gov](mailto:2006LOF.comments@noaa.gov) or to the Federal eRulemaking portal: <http://www.regulations.gov> (follow instructions for submitting comments).

Comments regarding the burden-hour estimates, or any other aspect of the collection of information requirements contained in this proposed rule, should be submitted in writing to the Chief, Marine Mammal Conservation Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910 and to David Rostker, OMB, by e-mail at [David\\_Rostker@omb.eop.gov](mailto:David_Rostker@omb.eop.gov) or by fax to 202-395-7285.

See **SUPPLEMENTARY INFORMATION** for a list of regional offices where registration information, materials, and marine mammal reporting forms may be obtained.

**FOR FURTHER INFORMATION CONTACT:**

Kristy Long, Office of Protected Resources, 301-713-1401; David Gouveia, Northeast Region, 978-281-9328; Juan Levesque, Southeast Region, 727-570-5312; Cathy Campbell, Southwest Region, 562-980-4060; Brent Norberg, Northwest Region, 206-526-6733; Bridget Mansfield, Alaska Region, 907-586-7642; Lisa Van Atta, Pacific Islands Region, 808-973-2937.

Individuals who use a telecommunications device for the hearing impaired may call the Federal Information Relay Service at 1-800-877-8339 between 8 a.m. and 4 p.m. Eastern time, Monday through Friday, excluding Federal holidays.

**SUPPLEMENTARY INFORMATION:****Regional Offices**

NMFS, Northeast Region, One Blackburn Drive, Gloucester, MA 01930-2298, Attn: Marcia Hobbs;

NMFS, Southeast Region, 263 13th Avenue South, St. Petersburg, FL 33701, Attn: Teletha Mincey;

NMFS, Southwest Region, Sustainable Fisheries Division, 501 W. Ocean Blvd., Suite 4200, Long Beach, CA 90802-4213, Attn: Lyle Enriquez;

NMFS, Northwest Region, 7600 Sand Point Way NE, Seattle, WA 98115, Attn: Permits Office;

NMFS, Alaska Region, Protected Resources, P.O. Box 22668, 709 West 9th Street, Juneau, AK 99802; or

NMFS, Pacific Islands Region, Protected Resources Division, 1601 Kapiolani Boulevard, Suite 1110, Honolulu, HI 96814-4700.

**What is the List of Fisheries?**

Section 118 of the MMPA requires that NMFS place all U.S. commercial fisheries into one of three categories based on the level of incidental serious injury and mortality of marine mammals that occurs in each fishery (16 U.S.C. 1387 (c)(1)). The categorization of a fishery in the LOF determines whether participants in that fishery may be required to comply with certain provisions of the MMPA, such as registration, observer coverage, and take reduction plan requirements. NMFS must reexamine the LOF annually, consider new information in the Stock Assessment Reports, other relevant sources, and the LOF, and publish in the *Federal Register* any necessary changes to the LOF after notice and opportunity for public comment (16 U.S.C. 1387 (c)(3)).

**How Does NMFS Determine in which Category a Fishery is Placed?**

The definitions for the fishery classification criteria can be found in

the implementing regulations for section 118 of the MMPA (50 CFR 229.2). The criteria are also summarized here.

**Fishery Classification Criteria**

The fishery classification criteria consist of a two-tiered, stock-specific approach that first addresses the total impact of all fisheries on each marine mammal stock, and then addresses the impact of individual fisheries on each stock. This approach is based on consideration of the rate, in numbers of animals per year, of incidental mortalities and serious injuries of marine mammals due to commercial fishing operations relative to the Potential Biological Removal (PBR) level for each marine mammal stock. The MMPA (16 U.S.C. 1362 (20)) defines the PBR level as the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. This definition can also be found in the implementing regulations for section 118 at 50 CFR 229.2

**Tier 1:** If the total annual mortality and serious injury across all fisheries that interact with a stock is less than or equal to 10 percent of the PBR level of the stock, all fisheries interacting with the stock would be placed in Category III. Otherwise, these fisheries are subject to the next tier (Tier 2) of analysis to determine their classification.

**Tier 2, Category I:** Annual mortality and serious injury of a stock in a given fishery is greater than or equal to 50 percent of the PBR level.

**Tier 2, Category II:** Annual mortality and serious injury of a stock in a given fishery is greater than 1 percent and less than 50 percent of the PBR level.

**Tier 2, Category III:** Annual mortality and serious injury of a stock in a given fishery is less than or equal to 1 percent of the PBR level.

While Tier 1 considers the cumulative fishery mortality and serious injury for a particular stock, Tier 2 considers fishery-specific mortality and serious injury for a particular stock. Additional details regarding how the categories were determined are provided in the preamble to the final rule implementing section 118 of the MMPA (60 FR 45086, August 30, 1995).

Since fisheries are categorized on a per-stock basis, a fishery may qualify as one Category for one marine mammal stock and another Category for a different marine mammal stock. A fishery is typically categorized on the LOF at its highest level of classification (e.g., a fishery that qualifies for Category III for one marine mammal stock and for

Category II for another marine mammal stock will be listed under Category II).

**Other Criteria That May Be Considered**

In the absence of reliable information indicating the frequency of incidental mortality and serious injury of marine mammals by a commercial fishery, NMFS will determine whether the incidental serious injury or mortality qualifies for Category II by evaluating other factors such as fishing techniques, gear used, methods used to deter marine mammals, target species, seasons and areas fished, qualitative data from logbooks or fisher reports, stranding data, and the species and distribution of marine mammals in the area, or at the discretion of the Assistant Administrator for Fisheries (50 CFR 229.2).

**How Do I Find Out if a Specific Fishery is in Category I, II, or III?**

This proposed rule includes two tables that list all U.S. commercial fisheries by LOF Category. Table 1 lists all of the fisheries in the Pacific Ocean (including Alaska). Table 2 lists all of the fisheries in the Atlantic Ocean, Gulf of Mexico, and Caribbean.

**Am I Required to Register Under the MMPA?**

Owners of vessels or gear engaging in a Category I or II fishery are required under the MMPA (16 U.S.C. 1387(c)(2)), as described in 50 CFR 229.4, to register with NMFS and obtain a marine mammal authorization from NMFS in order to lawfully incidentally take a marine mammal in a commercial fishery. Owners of vessels or gear engaged in a Category III fishery are not required to register with NMFS or obtain a marine mammal authorization.

**How Do I Register?**

Fishers must register with the Marine Mammal Authorization Program (MMAP) by contacting the relevant NMFS Regional Office (see ADDRESSES) unless they participate in a fishery that has an integrated registration program (described below). Upon receipt of a completed registration, NMFS will issue vessel or gear owners physical evidence of a current and valid registration that must be displayed or in the possession of the master of each vessel while fishing in accordance with section 118 of the MMPA (16 U.S.C. 1387(c)(3)(A)).

**What is the Process for Registering in an Integrated Fishery?**

For some fisheries, NMFS has integrated the MMPA registration process with existing state and Federal fishery license, registration, or permit

systems and related programs. Participants in these fisheries are automatically registered under the MMPA and are not required to submit registration or renewal materials or pay the \$25 registration fee. The following is a list of integrated fisheries and a summary of the integration process for each Region. Fishers who operate in an integrated fishery and have not received registration materials should contact their NMFS Regional Office (see ADDRESSES).

#### Which Fisheries Have Integrated Registration Programs?

The following fisheries have integrated registration programs under the MMPA:

1. All Alaska Category II fisheries;
2. All Washington and Oregon Category II fisheries;
3. Northeast Regional fisheries for which a state or Federal permit is required. Individuals fishing in fisheries for which no state or Federal permit is required must register with NMFS by contacting the Northeast Regional Office (see ADDRESSES); and
4. Southeast Regional fisheries for which a state or Federal permit is required. Southeast Regional fisheries include all North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, and Puerto Rico fisheries. Individuals fishing in fisheries for which no state or Federal permit is required, must register with NMFS by contacting the Southeast Regional Office (see ADDRESSES).
5. The Hawaii Swordfish, Tuna, Billfish, Mahi Mahi, Wahoo, Oceanic Sharks Longline/Set line Fishery.

#### How Do I Renew My Registration Under the MMPA?

Regional Offices, except for the Northeast and Southeast Regions, annually send renewal packets to participants in Category I or II fisheries that have previously registered; however, it is the responsibility of the fisher to ensure that registration or renewal forms are completed and submitted to NMFS at least 30 days in advance of fishing. Individuals who have not received a renewal packet by January 1 or are registering for the first time should request a registration form from the appropriate Regional Office (see ADDRESSES).

#### Am I Required to Submit Reports When I Injure or Kill a Marine Mammal During the Course of Commercial Fishing Operations?

In accordance with the MMPA (16 U.S.C. 1387(e)) and 50 CFR 229.6, any vessel owner or operator, or fisher (in

the case of non-vessel fisheries), participating in a Category I, II, or III fishery must report all incidental injuries or mortalities of marine mammals that occur during commercial fishing operations to NMFS. "Injury" is defined in 50 CFR 229.2 as a wound or other physical harm. In addition, any animal that ingests fishing gear or any animal that is released with fishing gear entangling, trailing, or perforating any part of the body is considered injured, regardless of the absence of any wound or other evidence of an injury, and must be reported. Instructions on how to submit reports can be found in 50 CFR 229.6.

#### Am I Required to Take an Observer Aboard My Vessel?

Fishers participating in a Category I or II fishery are required to accommodate an observer aboard vessel(s) upon request. Observer requirements can be found in 50 CFR 229.7.

#### Am I Required to Comply With Any Take Reduction Plan Regulations?

Fishers participating in a Category I or II fishery are required to comply with any applicable take reduction plans.

#### Sources of Information Reviewed for the Proposed 2006 LOF

NMFS reviewed the marine mammal incidental serious injury and mortality information presented in the Stock Assessment Reports (SARs) for all observed fisheries to determine whether changes in fishery classification were warranted. NMFS' SARs are based on the best scientific information available at the time of preparation for the information presented in the SARs, including the level of serious injury and mortality of marine mammals that occurs incidental to commercial fisheries and the PBR levels of marine mammal stocks. NMFS also reviewed other sources of new information, including marine mammal stranding data, observer program data, fisher self-reports, and other information that is not included in the SARs.

The information contained in the SARs is reviewed by regional scientific review groups (SRGs) representing Alaska, the Pacific (including Hawaii), and the U.S. Atlantic, Gulf of Mexico, and Caribbean. The SRGs were created by the MMPA to review the science that informs the SARs, and to advise NMFS on population status and trends, stock structure, uncertainties in the science, research needs, and other issues.

The proposed LOF for 2006 was based, among other things, on information provided in the final SARs for 1996 (63 FR 60, January 2, 1998), the

final SARs for 2001 (67 FR 10671, March 8, 2002), the final SARs for 2002 (68 FR 17920, April 14, 2003), the final SARs for 2003 (69 FR 54262, September 8, 2004), the final SARs for 2004 (70 FR 35397, June 20, 2005), and the draft SARs for 2005 (70 FR 37091, June 28, 2005).

#### Summary of Changes to the Proposed LOF for 2006

The following summarizes changes in fishery classification including fisheries listed on the LOF, the number of participants in a particular fishery, and the species and/or stocks that are incidentally killed or seriously injured in a particular fishery that are proposed for the 2006 LOF. The placement and definitions of U.S. commercial fisheries proposed for 2006 are identical to those provided in the LOF for 2005 with the exceptions provided below.

#### Commercial Fisheries in the Pacific Ocean: Fishery Classification

NMFS proposes to reclassify the AK Bering Sea and Aleutian Islands Greenland turbot longline fishery from Category II to Category III. The 2005 LOF reclassified this fishery based on a mortality of a killer whale (stock unknown) that occurred in 1999. This observed mortality extrapolated to an estimated mortality level of 3 animals in 1999, and a 5-year average of 0.6 killer whales per year for 1999–2003. In 2004, there were no serious injuries or mortalities of this species in the Greenland turbot longline fishery. When possible, fishery classifications are based on the most recent 5 years of data for a commercial fishery. Thus for the years 2000–2004, the 5-year average level of serious injury and mortality of killer whales incidental to this fishery is zero. This fishery is regularly observed by the Alaska Fisheries Science Center North Pacific Groundfish Observer Program and NMFS expects that future serious injuries and mortalities of killer whales would be detected by the program. Therefore, NMFS proposes to reclassify this fishery from Category II to Category III.

NMFS proposes to reclassify the CA sardine purse seine fishery from Category III to Category II. This fishery includes all vessels using purse seine gear to target sardine off of the coast of California. Most fishing occurs off of southern California, and occurs year-round. Fishing within 3 nautical miles of shore is prohibited by state law. NMFS began placing observers onboard CA sardine purse seine vessels in 2004 to collect information regarding the fishery's potential to interact with marine mammals. Observers have

documented entanglements of California sea lions in this fishery. In addition, this fishery uses similar gear and fishing techniques to other Category II purse seine fisheries (e.g., CA anchovy) known to seriously injure or kill marine mammals. Therefore, NMFS is proposing to reclassify this fishery to Category II based on analogy as provided in 50 CFR 229.2.

#### Addition of Fisheries to the LOF

NMFS proposes to add the "American Samoa longline fishery" to the LOF as a Category III fishery. The fishery has 138 participants. There are no documented marine mammal injuries or mortalities incidental to this fishery. NMFS is initiating a fishery observer program in this fishery in early 2006 and will reevaluate this fishery's classification when new information becomes available.

NMFS proposes to add the "Western Pacific squid jig fishery" to the LOF as a Category III fishery. There are no documented marine mammal serious injuries or mortalities incidental to this fishery. The fishery has 6 participants. This fishery is a Japanese-style jig fishery that operates at night by attracting squid with a light source. In the U.S. Pacific squid jigging fishery, bycatch of marine mammals is purported to be extremely small; if marine mammals are hooked, they would break the relatively weak squid lines before being brought to the boat. A similar fishery operates in the waters near Southern Australia. A draft Bycatch Action Plan was prepared for this fishery by the Australian Fisheries Management Authority in 2003. The report states that a "global assessment of bycatch and discards across world fisheries found that squid jigging is a highly selective fishing method". Because of the high selectivity of this fishery and a lack of reliable information regarding marine mammal bycatch in this fishery, NMFS proposes to add this fishery to the LOF in Category III.

NMFS proposes to add the "HI Kona crab loop net fishery" with 42 participants to the LOF as a Category III fishery. The fishery is conducted using baited loop nets above sandy substrate and is constantly tended by fishers. No marine mammal injuries or mortalities in this fishery have been documented. Therefore, NMFS proposes to add this fishery as a Category III fishery.

NMFS proposes to add the "HI offshore pen culture fishery" to the LOF as a Category III fishery. The fishery has 2 participants. There have been no documented marine mammal serious

injuries or mortalities incidental to this fishery.

NMFS proposes to add the "CA marine shellfish aquaculture fishery" to the LOF as a Category III fishery. This fishery includes a variety of target species and gear types including: clams (cultured either via ground or bag culture), oysters (cultured via bag, rack and bag, longline, stake, bottom culture, or suspended culture), scallops (cultured via offshore tray-based systems), and mussels (cultured via suspension from rafts or surface longlines in the subtidal zone). NMFS does not currently have any information regarding the number of participants in this fishery and there have been no documented marine mammal serious injuries or mortalities incidental to this fishery.

NMFS proposes to add the "CA white seabass enhancement net pen fishery" to the LOF as a Category III fishery. The fishery consists of a total of 13 enhancement net pens from Santa Barbara to San Diego, CA that are used as grow-out facilities for juvenile white seabass before release. The pens consist of large, supported nets or fiberglass raceways. The raceways are large rectangular fiberglass structures with open ends covered by steel mesh and steel predator barriers. The pens vary in depth from 4–5 ft (1.22–1.52 m) and accommodate 2,000 to 5,000 fish. There have been two observed mortalities of the U.S. stock of California sea lions in this fishery. There are 13 participants in this fishery as each pen represents a participant.

#### Removal of Fisheries from the LOF

NMFS proposes to remove the "HI net unclassified fishery" from the LOF. Since implementation of new and revised reporting forms, fishers report specific net gear used. Therefore, this fishery as currently listed on the LOF is no longer appropriate.

#### Fishery Name and Organizational Changes and Clarifications

NMFS proposes to modify the name of the "HI tuna fishery" to the "HI tuna handline fishery" to better reflect the gear type used in this fishery.

NMFS proposes to modify the name of the "HI deep sea bottomfish fishery" to the "HI Main Hawaiian Islands and Northwest Hawaiian Islands deep sea bottomfish fishery".

NMFS proposes to modify the name of the "HI coral diving fishery" to the "HI black coral diving fishery" to represent the target species in this fishery.

NMFS proposes to modify the name of the "HI other fishery" to the "HI charter vessel fishery".

#### Number of Vessels/Persons

NMFS proposes to update the estimated number of participants in the Hawaii gillnet fishery from 115 to 35.

NMFS proposes to update the estimated number of participants in the Hawaii opelu/akule net fishery from 16 to 12.

NMFS proposes to update the estimated number of participants in the Hawaii purse seine fishery from 18 to 23.

NMFS proposes to update the estimated number of participants in the Hawaii fish pond fishery to N/A as the fishery is currently not operating. NMFS is retaining this fishery on the LOF as there may be participants in the near future.

NMFS proposes to update the estimated number of participants in the Hawaii throw net, cast net fishery from 47 to 14.

NMFS proposes to update the estimated number of participants in the Hawaii trolling, rod and reel fishery from 1,795 to 1,321.

NMFS proposes to update the estimated number of participants in the Hawaii lobster trap fishery to 0 as the fishery is currently inactive. However, 14 permits are available if this fishery reopened.

NMFS proposes to update the number of participants in the Hawaii aku boat, pole and line fishery from 54 to 4.

NMFS proposes to update the number of participants in the Hawaii inshore handline fishery from 650 to 307.

NMFS proposes to update the number of participants in the Hawaii tuna handline fishery (proposed name change from the "Hawaii tuna" fishery, see Fishery Name and Organizational Changes and Clarifications section) from 144 to 298.

NMFS proposes to update the number of participants in the HI main Hawaiian Islands and Northwest Hawaiian Islands deep sea bottomfish fishery (proposed name change from the "HI deep sea bottomfish fishery", see Fishery Name and Organizational Changes and Clarifications section) from 434 to 387.

NMFS proposes to update the number of participants in the HI black coral diving fishery (proposed name change from the "HI coral diving fishery", see Fishery Name and Organizational Changes and Clarifications section) from 2 to 1.

NMFS proposes to update the number of participants in the HI handpick fishery from 135 to 37.

NMFS proposes to update the number of participants in the HI lobster diving fishery from 6 to 19.

NMFS proposes to update the number of participants in the HI squidling, spear fishery from 267 to 91.

NMFS proposes to update the number of participants on the AK BSAI Greenland turbot longline fishery from 36 to 12.

#### List of Species That are Incidentally Injured or Killed

NMFS proposes to add common dolphins to the list of marine mammal species and stocks incidentally injured or killed by the California squid purse seine fishery. An observer documented a mortality of a common dolphin (stock unknown) in 2005.

NMFS proposes to add the Hawaiian stocks of Blaineville's beaked whales and Pantropical spotted dolphins to the list of marine mammal species and stocks incidentally injured or killed by the Hawaii swordfish, tuna, billfish, mahi mahi, wahoo, and oceanic sharks longline/set line fishery. Serious injuries and mortalities of these stocks incidental to this fishery were documented by fisheries observers.

NMFS proposes to delete the Hawaiian stock of bottlenose dolphins from the list of marine mammal species and stocks incidentally injured or killed by the Hawaii inshore handline fishery as no interactions have been documented between this stock and the fishery within the last 5 years.

NMFS proposes to delete the Hawaiian stocks of bottlenose dolphins and rough tooth dolphins from the list of marine mammal species and stocks incidentally injured or killed by the Hawaii tuna handline fishery (proposed name change from "Hawaii tuna fishery", see Fishery Name and Organizational Changes and Clarifications section) as no interactions have been documented between these stocks and this fishery within the last 5 years.

NMFS proposes to correct some errors in the list of marine mammal species and stocks incidentally injured or killed incidental to the CA/OR thresher shark/swordfish drift gillnet fishery. Specifically, NMFS proposes to change the CA/OR/WA Pacific coast stock to the Eastern North Pacific offshore stock of killer whales and the CA/OR/WA stock to the CA stock of long-beaked common dolphins. Additionally, NMFS proposes to combine the Northern and Southern species of Pacific white-sided dolphins to reflect how these species are currently characterized in the SARs. NMFS proposes to correct some errors in the list of marine mammal species

and stocks incidentally injured or killed incidental to the WA, OR, CA groundfish trawl fishery.

NMFS proposes to change the Central North Pacific stock to the CA/OR/WA stock of Pacific white-sided dolphins and the Western stock to the Eastern stock of Steller sea lions.

#### Alaska Fisheries

The 2004 LOF revised the Federally managed fisheries in Alaska into more discrete fisheries according to area, gear, and target species in order to more accurately reflect the fisheries as managed under Federal Fishery Management Plans. At that time, the marine mammal stocks associated with the newly delineated fisheries in the LOF were not revised accordingly.

NMFS proposes to include the following marine mammal stocks that have had documented injuries or mortalities in the following Federal fisheries as listed in this proposed rule.

NMFS proposes to add the Eastern North Pacific stock of Northern fur seals, the Bering Sea stocks of harbor porpoise and harbor seals, and the Alaska stocks of bearded seals, spotted seals, and walrus to the list of marine mammal species and stocks injured or killed incidental to the AK BSAI flatfish trawl fishery.

NMFS proposes to add the Bering Sea stock of harbor seals and the Alaska stocks of Dall's porpoise, minke whales, ribbon seals, and spotted seals to the list of marine mammal species and stocks injured or killed incidental to the AK BSAI pollock trawl fishery.

NMFS proposes to add the Alaska stock of ribbon seals and the Western U.S. stock of Steller sea lions to the list of marine mammal species and stocks injured or killed incidental to the AK BSAI Pacific cod longline fishery.

NMFS proposes to add the Eastern U.S. stock of Steller sea lions and the North Pacific stock of sperm whales to the list of marine mammal species and stocks injured or killed incidental to the AK GOA sablefish longline fishery.

NMFS proposes to add the Western U.S. stock of Steller sea lions and the Bering Sea stock of harbor seals to the list of marine mammal species and stocks injured or killed incidental to the AK BSAI Pacific cod trawl fishery.

NMFS proposes to add the Western U.S. stock of Steller sea lions to the list of marine mammal species and stocks injured or killed incidental to the AK GOA Pacific cod trawl fishery.

NMFS proposes to add the Western Northeast Pacific stock of fin whales, and the North Pacific stock of Northern elephant seals to the list of marine

mammal species and stocks injured or killed incidental to the AK GOA pollock trawl fishery.

NMFS proposes to add the GOA stock of harbor seals to the list of marine mammal species and stocks injured or killed incidental to the AK GOA Pacific cod pot fishery.

NMFS proposes to add the Eastern and Western U.S. stocks of Steller sea lions and an unknown stock of killer whales to the list of marine mammal species and stocks injured or killed incidental to the AK, WA, OR, CA commercial passenger fishing vessel fishery.

NMFS proposes to add the Central North Pacific (Southeast AK) stock of humpback whales to the list of marine mammal species and stocks injured or killed incidental to the AK Southeast Alaska crab pot fishery.

NMFS proposes to add the Central North Pacific (Southeast AK) stock of humpback whales to the list of marine mammal species and stocks injured or killed incidental to the AK Southeast Alaska shrimp pot fishery.

NMFS proposes to add the Central North Pacific (Southeast AK) stock of humpback whales to the list of marine mammal species and stocks injured or killed incidental to the AK Yakutat salmon set gillnet fishery.

NMFS proposes to add the Western U.S. stock of Steller sea lions to the list of marine mammal species and stocks injured or killed incidental to the AK Kodiak salmon set gillnet fishery.

NMFS proposes to delete the Eastern North Pacific transient stock of killer whales from the list of marine mammals species and stocks injured or killed in the Alaska BSAI flatfish trawl fishery.

Because NMFS did not have information regarding which stock was injured or killed incidental to this fishery, both the Eastern North Pacific transient and resident stocks of killer whales were listed in the 2005 LOF as interacting with this fishery. However, since publication of the 2005 LOF, NMFS has obtained the results of

genetic analysis on the biopsy samples taken from killer whales seriously injured or killed in this fishery. The results indicate that the fishery interacted with the resident stock of Eastern North Pacific killer whales. Therefore, NMFS proposes to remove the stock (transient) that did not interact with this fishery.

NMFS proposes to delete the Eastern North Pacific resident stock of killer whales from the list of marine mammals species and stocks incidentally injured or killed in the Alaska BSAI pollock trawl fishery. Because NMFS did not have information regarding which stock

was injured or killed incidental to this fishery, both the Eastern North Pacific transient and resident stocks of killer whales were listed in the 2005 LOF as interacting with this fishery. However, since publication of the 2005 LOF, NMFS has obtained the results of genetic analysis on the biopsy samples taken from killer whales seriously injured or killed in this fishery. These results indicate that the fishery interacted with the transient stock of Eastern North Pacific killer whales. Therefore, NMFS proposes to remove the stock (resident) that did not interact with this fishery.

#### **Commercial Fisheries in the Atlantic Ocean, Gulf of Mexico, and Caribbean: Fishery Classification**

NMFS proposes to reclassify the Chesapeake Bay inshore gillnet fishery from Category III to Category II based on its potential to seriously injure or kill the Western North Atlantic stock of bottlenose dolphins. Bottlenose dolphins are known to use the entire Chesapeake Bay, including waters landward of the Chesapeake Bay Bridge-Tunnel. Since the Chesapeake Bay inshore gillnet fishery is currently a Category III fishery, observer coverage is not required; therefore, no marine mammal interactions with this fishery have been documented. However, serious injuries and mortalities of the Western North Atlantic stock of bottlenose dolphins have been documented in similar gillnet fisheries in the Mid-Atlantic, such as the Mid-Atlantic gillnet fishery and the North Carolina inshore gillnet fishery, both of which are currently Category II fisheries. Reclassifying the Chesapeake Bay inshore gillnet fishery to Category II will allow NMFS to characterize marine mammal interactions with this fishery through the observer program. Based on the potential overlap in distribution of the Western North Atlantic stock of bottlenose dolphins and this fishery, in addition to documented serious injuries and mortalities in similar gillnet gear, NMFS proposes to reclassify this fishery to Category II based on analogy as provided in 50 CFR 229.2.

NMFS proposes to reclassify the Mid-Atlantic menhaden purse seine fishery from Category III to Category II based on its potential to seriously injure or kill the Western North Atlantic stock of bottlenose dolphins. Since this fishery is currently a Category III fishery, observer coverage is not required; therefore, no marine mammal interactions with this fishery have been documented. However, according to the most recent stock assessment of the Western North Atlantic stock of

bottlenose dolphins, menhaden purse seiners have reported annual interactions of one to five bottlenose dolphins. In addition, the Gulf of Mexico menhaden purse seine fishery is classified as a Category II fishery based on documented bycatch of several bottlenose dolphin stocks, including the Northern, Eastern, and Western Gulf of Mexico coastal stocks, and the Gulf of Mexico bay, sound, and estuarine stock. Elevating this fishery to Category II will allow NMFS to characterize marine mammal interactions with this fishery through the observer program. Based on documented bycatch of bottlenose dolphins in purse seine gear, NMFS proposes to reclassify this fishery in Category II.

#### **Addition of Fisheries to the LOF**

NMFS proposes to add the "Southeast Atlantic inshore gillnet fishery" to the LOF as a Category III fishery. This fishery typically targets shad and river herring in inshore rivers and bays (inside the COLREGS lines). Despite the lack of adequate observer coverage in this fishery, NMFS has no evidence to suggest that there is more than a remote likelihood of marine mammal serious injuries or mortalities incidental to this fishery. The number of participants in this fishery is unknown.

#### **List of Species That are Incidentally Injured or Killed**

NMFS proposes to remove the Western North Atlantic stock of fin whales from the list of marine mammal species and stocks incidentally injured or killed incidental to the Mid-Atlantic gillnet fishery. NMFS added this stock in the 2005 LOF and has since confirmed that the NMFS observer program does not have a documented interaction between this stock and this fishery.

NMFS proposes to add several bottlenose dolphin stocks to the list of marine mammal species and stocks incidentally injured or killed incidental to the Atlantic Ocean, Gulf of Mexico, Caribbean commercial passenger fishing vessel fishery based on anecdotal reports of dolphins interacting with hook and line gear in both the Atlantic and Gulf of Mexico. These bottlenose dolphin stocks include the Western North Atlantic coastal, Eastern Gulf of Mexico coastal, Northern Gulf of Mexico coastal, and Western Gulf of Mexico coastal.

NMFS proposes to remove the Western North Atlantic offshore stock of bottlenose dolphins and the Western North Atlantic stock of striped dolphins from the list of marine mammal species and stocks injured or killed incidental

to the Northeast bottom trawl fishery because NMFS has not documented any serious injuries or mortalities of these stocks incidental to this fishery in the past 5 years.

#### **Fishery Name and Organizational Changes and Clarifications**

##### *Southeast Atlantic Gillnet Fishery*

NMFS proposes to expand the list of target species associated with the "Southeast Atlantic gillnet fishery". In the 2001 LOF (66 FR 42780, August 15, 2001), NMFS renamed all southeastern Atlantic gillnet fisheries (except the Southeastern U.S. Atlantic shark gillnet fishery) as the "Southeast Atlantic gillnet fishery", and elevated this fishery from Category III to Category II. This fishery designation included fisheries identified in previous LOFs as the "Florida East Coast pelagics king and Spanish mackerel gillnet fishery" and the "Southeast U.S. Atlantic coastal shad, sturgeon gillnet fishery". In 2006, NMFS received information from the Florida Fish and Wildlife Commission's trip ticket database that landings from 2002–2005 using gillnet gear on the east coast of Florida also include landings of whiting, bluefish, pompano, spot, croaker, little tunny, bonita, jack crevalle, and cobia, in addition to king and Spanish mackerel and shad. These species are targeted using both pelagic and demersal gillnet gear, each of which poses similar risks of entanglement to marine mammals. Therefore, NMFS proposes to expand the list of fish species associated with the "Southeast Atlantic gillnet fishery" to include the following target species: king mackerel, Spanish mackerel, whiting, bluefish, pompano, spot, croaker, little tunny, bonita, jack crevalle, and cobia. Atlantic sturgeon are listed as a species of concern under the Endangered Species Act and are also managed under a fishery management plan; a moratorium on possession and harvest of this species currently exists throughout the U.S. East Coast. Additionally, fishing for shad in ocean waters is prohibited by Southeast coastal states and is therefore no longer included as a target species of the Southeast Atlantic gillnet fishery.

#### **List of Fisheries**

The following two tables list U.S. commercial fisheries according to their assigned categories under section 118 of the MMPA. The estimated number of vessels/participants is expressed in terms of the number of active participants in the fishery, when possible. If this information is not available, the estimated number of vessels or persons licensed for a

particular fishery is provided. If no recent information is available on the number of participants in a fishery, the number from the most recent LOF is used.

The tables also list the marine mammal species and stocks that are incidentally killed or injured in each fishery based on observer data, logbook data, stranding reports, and fisher reports. This list includes all species or stocks known to experience injury or mortality in a given fishery, but also includes species or stocks for which there are anecdotal records of

interaction. Additionally, species identified by logbook entries may not be verified. Not all species or stocks identified are the reason for a fishery's placement in a given category. NMFS has designated those stocks that are responsible for a current fishery's classification by a "1".

There are several fisheries classified in Category II that have no recently documented interactions with marine mammals. Justifications for placement of these fisheries are by analogy to other gear types that are known to cause mortality or serious injury of marine

mammals, as discussed in the final LOF for 1996 (60 FR 67063, December 28, 1995), and according to factors listed in the definition of a "Category II fishery" in 50 CFR 229.2. NMFS has designated those fisheries originally listed by analogy in Tables 1 and 2 by a "2" after that fishery's name.

Table 1 lists commercial fisheries in the Pacific Ocean (including Alaska); Table 2 lists commercial fisheries in the Atlantic Ocean, Gulf of Mexico, and Caribbean.

BILLING CODE 3510-22-S



Table 1 - List of Fisheries Commercial Fisheries in the Pacific  
Ocean

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Category I		
<u>GILLNET FISHERIES:</u>		
CA angel shark/halibut and other species set gillnet (>3.5 in. mesh)	58	California sea lion, U.S. Harbor seal, CA Harbor porpoise, Central CA <sup>1</sup> Long-beaked common dolphin, CA Northern elephant seal, CA breeding Sea otter, CA Short-beaked common dolphin, CA/OR/WA
CA/OR thresher shark/swordfish drift gillnet (>14 in. mesh)	85	Baird's beaked whale, CA/OR/WA Bottlenose dolphin, CA/OR/WA offshore California sea lion, U.S. Cuvier's beaked whale, CA/OR/WA Dall's porpoise, CA/OR/WA Fin whale, CA/OR/WA Gray whale, Eastern North Pacific Humpback whale, CA/OR/WA-Mexico Killer whale, Eastern North Pacific offshore Long-beaked common dolphin, CA Mesoplodont beaked whale, CA/OR/WA Northern elephant seal, CA breeding Northern fur seal, San Miguel Island Northern right-whale dolphin, CA/OR/WA Pacific white-sided dolphin, CA/OR/WA Pygmy sperm whale, CA/OR/WA Risso's dolphin, CA/OR/WA Short-beaked common dolphin, CA/OR/WA Short-finned pilot whale, CA/OR/WA <sup>1</sup> Sperm whale, CA/OR/WA Steller sea lion, Eastern U.S. Striped dolphin, CA/OR/WA
<u>LONGLINE/SET LINE FISHERIES:</u>		
HI swordfish, tuna, billfish, mahi mahi, wahoo, oceanic sharks longline/set line	140	Blainville's beaked whale, HI Bottlenose dolphin, HI False killer whale, HI <sup>1</sup> Humpback whale, Central North Pacific Pantropical spotted dolphin, HI Risso's dolphin, HI Short-finned pilot whale, HI Spinner dolphin, HI Sperm whale, HI
Category II		
<u>GILLNET FISHERIES:</u>		



Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
AK Bristol Bay salmon drift gillnet <sup>2</sup>	1,903	Beluga whale, Bristol Bay Gray whale, Eastern North Pacific Harbor seal, Bering Sea Northern fur seal, Eastern Pacific Pacific white-sided dolphin, North Pacific Spotted seal, AK Steller sea lion, Western U.S. <sup>1</sup>
AK Bristol Bay salmon set gillnet <sup>2</sup>	1,014	Beluga whale, Bristol Bay Gray whale, Eastern North Pacific Harbor seal, Bering Sea Northern fur seal, Eastern Pacific Spotted seal, AK
AK Cook Inlet salmon drift gillnet	576	Beluga whale, Cook Inlet Dall's porpoise, AK Harbor porpoise, GOA <sup>1</sup> Harbor seal, GOA Steller sea lion, Western U.S.
AK Kodiak salmon set gillnet	188	Harbor porpoise, GOA <sup>1</sup> Harbor seal, GOA Sea otter, Southwest AK Steller sea lion, Western U.S.
AK Metlakatla/Annette Island salmon drift gillnet <sup>2</sup>	60	None documented
AK Peninsula/Aleutian Islands salmon drift gillnet <sup>2</sup>	164	Dall's porpoise, AK Harbor porpoise, GOA Harbor seal, GOA Northern fur seal, Eastern Pacific
AK Peninsula/Aleutian Islands salmon set gillnet <sup>2</sup>	116	Harbor porpoise, Bering Sea Steller sea lion, Western U.S.
AK Prince William Sound salmon drift gillnet	541	Dall's porpoise, AK Harbor porpoise, GOA <sup>1</sup> Harbor seal, GOA Northern fur seal, Eastern Pacific Pacific white-sided dolphin, North Pacific Sea Otter, South Central AK Steller sea lion, Western U.S. <sup>1</sup>
AK Southeast salmon drift gillnet	481	Dall's porpoise, AK Harbor porpoise, Southeast AK Harbor seal, Southeast AK Humpback whale, Central North Pacific <sup>1</sup> Pacific white-sided dolphin, North Pacific Steller sea lion, Eastern U.S.
AK Yakutat salmon set gillnet <sup>2</sup>	170	Gray whale, Eastern North Pacific Harbor seal, Southeast AK Humpback whale, Central North Pacific (Southeast AK)

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
CA yellowtail, barracuda, white seabass, and tuna drift gillnet fishery (mesh size > 3.5 inches and < 14 inches) <sup>2</sup>	24	California sea lion, U.S. Long-beaked common dolphin, CA Short-beaked common dolphin, CA/OR/WA
WA Puget Sound Region salmon drift gillnet (includes all inland waters south of US-Canada border and eastward of the Bonilla-Tatoosh line-Treaty Indian fishing is excluded)	210	Dall's porpoise, CA/OR/WA Harbor porpoise, inland WA <sup>1</sup> Harbor seal, WA inland
<u>PURSE SEINE FISHERIES:</u>		
AK Southeast salmon purse seine	416	Humpback whale, Central North Pacific <sup>1</sup>
CA anchovy, mackerel, tuna purse seine	110	Bottlenose dolphin, CA/OR/WA offshore <sup>1</sup> California sea lion, U.S. Harbor seal, CA
CA sardine purse seine <sup>2</sup>	110	California sea lion, U.S.
CA squid purse seine	65	Common dolphin, unknown Short-finned pilot whale, CA/OR/WA <sup>1</sup>
<u>TRAWL FISHERIES:</u>		
AK miscellaneous finfish pair trawl	2	None documented
AK Bering Sea, Aleutian Islands flatfish trawl	26	Bearded seal, AK Harbor porpoise, Bering Sea Harbor seal, Bering Sea Killer whale, AK resident <sup>1</sup> Northern fur seal, Eastern North Pacific Spotted seal, AK Steller sea lion, Western U.S. <sup>1</sup> Walrus, AK
AK Bering Sea, Aleutian Islands pollock trawl	120	Dall's porpoise, AK Harbor seal, AK Humpback whale, Central North Pacific <sup>1</sup> Humpback whale, Western North Pacific <sup>1</sup> Killer whale, Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient <sup>1</sup> Minke whale, AK Ribbon seal, AK Spotted seal, AK Steller sea lion, Western U.S. <sup>1</sup>
<u>LONGLINE/SET LINE FISHERIES:</u>		

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
AK Bering Sea, Aleutian Islands Pacific cod longline	114	Killer whale, AK resident <sup>1</sup> Killer whale, Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient <sup>1</sup> Ribbon seal, AK Steller sea lion, Western U.S.
CA pelagic longline <sup>2</sup>	6	California sea lion, U.S. Risso's dolphin, CA/OR/WA
OR swordfish floating longline <sup>2</sup>	0	None documented
OR blue shark floating longline <sup>2</sup>	1	None documented
<u>POT, RING NET, AND TRAP FISHERIES:</u>		
AK Bering Sea sablefish pot	6	Humpback whale, Central North Pacific <sup>1</sup> Humpback whale, Western North Pacific <sup>1</sup>
Category III		
<u>GILLNET FISHERIES:</u>		
AK Cook Inlet salmon set gillnet	745	Beluga whale, Cook Inlet Dall's porpoise, AK Harbor porpoise, GOA Harbor seal, GOA Steller sea lion, Western U.S.
AK Kuskokwim, Yukon, Norton Sound, Kotzebue salmon gillnet	1,922	Harbor porpoise, Bering Sea
AK miscellaneous finfish set gillnet	3	Steller sea lion, Western U.S.
AK Prince William Sound salmon set gillnet	30	Harbor seal, GOA Steller sea lion, Western U.S.
AK roe herring and food/bait herring gillnet	2,034	None documented
CA set and drift gillnet fisheries that use a stretched mesh size of 3.5 in or less	341	None documented
Hawaii gillnet	35	Bottlenose dolphin, HI Spinner dolphin, HI
WA Grays Harbor salmon drift gillnet (excluding treaty Tribal fishing)	24	Harbor seal, OR/WA coast
WA, OR herring, smelt, shad, sturgeon, bottom fish, mullet, perch, rockfish gillnet	913	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
WA, OR lower Columbia River (includes tributaries) drift gillnet	110	California sea lion, U.S. Harbor seal, OR/WA coast
WA Willapa Bay drift gillnet	82	Harbor seal, OR/WA coast Northern elephant seal, CA breeding
<u>PURSE SEINE, BEACH SEINE, ROUND HAUL, AND THROW NET FISHERIES:</u>		
AK Metlakatla salmon purse seine	10	None documented
AK miscellaneous finfish beach seine	1	None documented
AK miscellaneous finfish purse seine	3	None documented
AK octopus/squid purse seine	2	None documented
AK roe herring and food/bait herring beach seine	8	None documented
AK roe herring and food/bait herring purse seine	624	None documented
AK salmon beach seine	34	None documented
AK salmon purse seine (except Southeast Alaska, which is in Category II)	953	Harbor seal, GOA
CA herring purse seine	100	California sea lion, U.S. Harbor seal, CA
HI Kona crab loop net	42	None documented
HI opelu/akule net	12	None documented
HI purse seine	23	None documented
HI throw net, cast net	14	None documented
WA (all species) beach seine or drag seine	235	None documented
WA, OR herring, smelt, squid purse seine or lampara	130	None documented
WA salmon purse seine	440	None documented
WA salmon reef net	53	None documented
<u>DIP NET FISHERIES:</u>		
CA squid dip net	115	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
WA, OR smelt, herring dip net	119	None documented
<u>MARINE AQUACULTURE FISHERIES:</u>		
CA marine shellfish aquaculture	unknown	None documented
CA salmon enhancement rearing pen	>1	None documented
CA white seabass enhancement net pens	13	California sea lion, U.S.
HI offshore pen culture	2	None documented
OR salmon ranch	1	None documented
WA, OR salmon net pens	14	California sea lion, U.S. Harbor seal, WA inland waters
<u>TROLL FISHERIES:</u>		
AK North Pacific halibut, AK bottom fish, WA, OR, CA albacore, groundfish, bottom fish, CA halibut non-salmonid troll fisheries	1,530 (330 AK)	None documented
AK salmon troll	2,335	Steller sea lion, Eastern U.S. Steller sea lion, Western U.S.
American Samoa tuna troll	<50	None documented
CA/OR/WA salmon troll	4,300	None documented
Commonwealth of the Northern Mariana Islands tuna troll	50	None documented
Guam tuna troll	50	None documented
HI trolling, rod and reel	1,321	None documented
<u>LONGLINE/SET LINE FISHERIES:</u>		
AK Bering Sea, Aleutian Islands Greenland turbot longline	12	Killer whale, AK resident Killer whale, Eastern North Pacific, GOA, Aleutian Islands, and Bering Sea transient
AK Bering Sea, Aleutian Islands rockfish longline	17	None documented
AK Bering Sea, Aleutian Islands sablefish longline	63	None documented
AK Gulf of Alaska halibut longline	1302	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
AK Gulf of Alaska Pacific cod longline	440	None documented
AK Gulf of Alaska rockfish longline	421	None documented
AK Gulf of Alaska sablefish longline	412	Sperm whale, North Pacific Steller sea lion, Eastern U.S.
AK halibut longline/set line (State and Federal waters)	3,079	Steller sea lion, Western U.S.
AK octopus/squid longline	7	None documented
AK state-managed waters groundfish longline/setline (including sablefish, rockfish, and miscellaneous finfish)	731	None documented
American Samoa longline	138	None documented
WA, OR, CA groundfish, bottomfish longline/set line	367	None documented
WA, OR North Pacific halibut longline/set line	350	None documented
<b>TRAWL FISHERIES:</b>		
AK Bering Sea, Aleutian Islands Atka mackerel trawl	8	Steller sea lion, Western U.S.
AK Bering Sea, Aleutian Islands Pacific cod trawl	87	Harbor seal, Bering Sea Steller sea lion, Western U.S.
AK Bering Sea, Aleutian Islands rockfish trawl	9	None documented
AK Gulf of Alaska flatfish trawl	52	None documented
AK Gulf of Alaska Pacific cod trawl	101	Steller sea lion, Western U.S.
AK Gulf of Alaska pollock trawl	83	Fin whale, Northeast Pacific Northern elephant seal, North Pacific Steller sea lion, Western U.S.
AK Gulf of Alaska rockfish trawl	45	None documented
AK food/bait herring trawl	3	None documented
AK miscellaneous finfish otter or beam trawl	6	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
AK shrimp otter trawl and beam trawl (statewide and Cook Inlet)	58	None documented
AK state-managed waters of Cook Inlet, Kachemak Bay, Prince William Sound, Southeast AK groundfish trawl	2	None documented
WA, OR, CA groundfish trawl	585	California sea lion, U.S. Dall's porpoise, CA/OR/WA Harbor seal, OR/WA coast Northern fur seal, Eastern Pacific Pacific white-sided dolphin, CA/OR/WA Steller sea lion, Eastern U.S.
WA, OR, CA shrimp trawl	300	None documented
<u>POT, RING NET, AND TRAP FISHERIES:</u>		
AK Aleutian Islands sablefish pot	8	None documented
AK Bering Sea, Aleutian Islands Pacific cod pot	76	None documented
AK Bering Sea, Aleutian Islands crab pot	329	None documented
AK Gulf of Alaska crab pot	unknown	None documented
AK Gulf of Alaska Pacific cod pot	154	Harbor seal, GOA
AK Southeast Alaska crab pot	unknown	Humpback whale, Central North Pacific (Southeast AK)
AK Southeast Alaska shrimp pot	unknown	Humpback whale, Central North Pacific (Southeast AK)
AK octopus/squid pot	72	None documented
AK snail pot	2	None documented
CA lobster, prawn, shrimp, rock crab, fish pot	608	Sea otter, CA
OR, CA hagfish pot or trap	25	None documented
WA, OR, CA crab pot	1,478	Gray whale, Eastern North Pacific
WA, OR, CA sablefish pot	176	None documented
WA, OR shrimp pot/trap	254	None documented
HI crab trap	22	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
HI fish trap	19	None documented
HI lobster trap	0	Hawaiian monk seal
HI shrimp trap	5	None documented
<u>HANDLINE AND JIG FISHERIES:</u>		
AK miscellaneous finfish handline and mechanical jig	100	None documented
AK North Pacific halibut handline and mechanical jig	93	None documented
AK octopus/squid handline	2	None documented
American Samoa bottomfish	<50	None documented
Commonwealth of the Northern Mariana Islands bottomfish	<50	None documented
Guam bottomfish	<50	None documented
HI aku boat, pole and line	4	None documented
HI Main Hawaiian Islands, Northwest Hawaiian Islands deep sea bottomfish	387	Hawaiian monk seal
HI inshore handline	307	None documented
HI tuna handline	298	Hawaiian monk seal
WA groundfish, bottomfish jig	679	None documented
Western Pacific squid jig	6	None documented
<u>HARPOON FISHERIES:</u>		
CA swordfish harpoon	30	None documented
<u>POUND NET/WEIR FISHERIES:</u>		
AK herring spawn on kelp pound net	452	None documented
AK Southeast herring roe/food/bait pound net	3	None documented
WA herring brush weir	1	None documented
<u>BAIT PENS:</u>		
WA/OR/CA bait pens	13	California sea lion, U.S.
<u>DREDGE FISHERIES:</u>		



Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Coastwide scallop dredge	108 (12 AK)	None documented
<u>DIVE, HAND/MECHANICAL COLLECTION FISHERIES:</u>		
AK abalone	1	None documented
AK clam	156	None documented
WA herring spawn on kelp	4	None documented
AK dungeness crab	3	None documented
AK herring spawn on kelp	363	None documented
AK urchin and other fish/shellfish	471	None documented
CA abalone	111	None documented
CA sea urchin	583	None documented
HI black coral diving	1	None documented
HI fish pond	N/A	None documented
HI handpick	37	None documented
HI lobster diving	19	None documented
HI squidding, spear	91	None documented
WA, CA kelp	4	None documented
WA/OR sea urchin, other clam, octopus, oyster, sea cucumber, scallop, ghost shrimp hand, dive, or mechanical collection	637	None documented
WA shellfish aquaculture	684	None documented
<u>COMMERCIAL PASSENGER FISHING VESSEL (CHARTER BOAT) FISHERIES:</u>		
AK, WA, OR, CA commercial passenger fishing vessel	>7,000 (1,107 AK)	Killer whale, stock unknown Steller sea lion, Eastern U.S. Steller sea lion, Western U.S.
HI charter vessel	114	None documented
<u>LIVE FINFISH/SHELLFISH FISHERIES:</u>		
CA finfish and shellfish live trap/hook-and-line	93	None documented

List of Abbreviations and Symbols Used in Table 1: AK - Alaska; CA - California; GOA - Gulf of Alaska; HI - Hawaii; OR - Oregon; WA - Washington; <sup>1</sup> - Serious injuries and mortalities of this stock are greater than 1 percent, but less than 50 percent of the stock's PBR; therefore, bycatch of this stock determines this fishery's classification; <sup>2</sup> - Fishery classified by analogy.

Table 2 - List of Fisheries Commercial Fisheries in the Atlantic Ocean, Gulf of Mexico, and Caribbean

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Category I		
<u>GILLNET FISHERIES:</u>		
Mid-Atlantic gillnet	>655	Bottlenose dolphin, WNA coastal <sup>1</sup> Bottlenose dolphin, WNA offshore <sup>1</sup> Common dolphin, WNA Gray seal, WNA Harbor porpoise, GME/BF <sup>1</sup> Harbor seal, WNA Harp seal, WNA Humpback whale, Gulf of Maine <sup>1</sup> Long-finned pilot whale, WNA Minke whale, Canadian east coast <sup>1</sup> Short-finned pilot whale, WNA White-sided dolphin, WNA
Northeast sink gillnet	341	Bottlenose dolphin, WNA offshore Common dolphin, WNA Fin whale, WNA Gray seal, WNA Harbor porpoise, GME/BF <sup>1</sup> Harbor seal, WNA Harp seal, WNA Hooded seal, WNA Humpback whale, WNA <sup>1</sup> Minke whale, Canadian east coast <sup>1</sup> North Atlantic right whale, WNA <sup>1</sup> Risso's dolphin, WNA White-sided dolphin, WNA
<u>LOONGLINE FISHERIES:</u>		
Atlantic Ocean, Caribbean, Gulf of Mexico large pelagics longline	<200	Atlantic spotted dolphin, Northern GMX Atlantic spotted dolphin, WNA Bottlenose dolphin, GMX outer continental shelf Bottlenose dolphin, GMX, continental shelf edge and slope Bottlenose dolphin, WNA offshore Common dolphin, WNA Cuvier's beaked whale, WNA Long-finned pilot whale, WNA <sup>1</sup> Mesoplodon beaked whale, WNA Pantropical spotted dolphin, Northern GMX Pantropical spotted dolphin, WNA Pygmy sperm whale, WNA <sup>1</sup> Risso's dolphin, Northern GMX Risso's dolphin, WNA Short-finned pilot whale, Northern GMX Short-finned pilot whale, WNA <sup>1</sup>

Fishery Description	Estimated # of vessels/persons	Marine mammal species and stocks incidentally killed/injured
<u>TRAP/POT FISHERIES:</u>		
Northeast/Mid-Atlantic American lobster trap/pot	13,000	Fin whale, WNA Harbor seal, WNA Humpback whale, WNA <sup>1</sup> Minke whale, Canadian east coast <sup>1</sup> North Atlantic right whale, WNA <sup>1</sup>
<u>TRAWL FISHERIES:</u>		
Mid-Atlantic mid-water trawl (including pair trawl)	620	Bottlenose dolphin, WNA offshore Common dolphin, WNA <sup>1</sup> Long-finned pilot whale, WNA <sup>1</sup> Risso's dolphin, WNA Short-finned pilot whale, WNA <sup>1</sup> White-sided dolphin, WNA <sup>1</sup>
Category II		
<u>GILLNET FISHERIES:</u>		
Chesapeake Bay inshore gillnet <sup>2</sup>	45	None documented
Gulf of Mexico gillnet <sup>2</sup>	724	Bottlenose dolphin, Eastern GMX coastal Bottlenose dolphin, GMX bay, sound, and estuarine Bottlenose dolphin, Northern GMX coastal Bottlenose dolphin, Western GMX coastal
North Carolina inshore gillnet	94	Bottlenose dolphin, WNA coastal <sup>1</sup>
Northeast anchored float gillnet <sup>2</sup>	133	Harbor seal, WNA Humpback whale, WNA White-sided dolphin, WNA
Northeast drift gillnet <sup>2</sup>	unknown	None documented
Southeast Atlantic gillnet <sup>2</sup>	779	Bottlenose dolphin, WNA coastal
Southeastern U.S. Atlantic shark gillnet	6	Atlantic spotted dolphin, WNA Bottlenose dolphin, WNA coastal <sup>1</sup> North Atlantic right whale, WNA
<u>TRAWL FISHERIES:</u>		
Mid-Atlantic bottom trawl	>1,000	Common dolphin, WNA <sup>1</sup> Long-finned pilot whale, WNA <sup>1</sup> Short-finned pilot whale, WNA <sup>1</sup>
Northeast mid-water trawl (including pair trawl)	17	Harbor seal, WNA Long-finned pilot whale, WNA <sup>1</sup> Short-finned pilot whale, WNA <sup>1</sup> White-sided dolphin, WNA

Fishery Description	Estimated # of vessels/persons	Marine mammal species and stocks incidentally killed/injured
Northeast bottom trawl	1,052	Common dolphin, WNA Harbor porpoise, GME/BF Harp seal, WNA <sup>1</sup> Long-finned pilot whale, WNA Short-finned pilot whale, WNA White-sided dolphin, WNA <sup>1</sup>
<u>TRAP/POT FISHERIES:</u>		
Atlantic blue crab trap/pot	>16,000	Bottlenose dolphin, WNA coastal <sup>1</sup> West Indian manatee, FL <sup>1</sup>
Atlantic mixed species trap/pot	unknown	Fin whale, WNA Humpback whale, Gulf of Maine <sup>1</sup>
<u>PURSE SEINE FISHERIES:</u>		
Gulf of Mexico menhaden purse seine	50	Bottlenose dolphin, Eastern GMX coastal Bottlenose dolphin, GMX bay, sound, estuarine Bottlenose dolphin, Northern GMX coastal <sup>1</sup> Bottlenose dolphin, Western GMX coastal
Mid-Atlantic menhaden purse seine <sup>2</sup>	22	Bottlenose dolphin, WNA coastal
<u>HAUL/BEACH SEINE FISHERIES:</u>		
Mid-Atlantic haul/beach seine	25	Bottlenose dolphin, WNA coastal <sup>1</sup> Harbor porpoise, GME/BF
North Carolina long haul seine	33	Bottlenose dolphin, WNA coastal <sup>1</sup>
<u>STOP NET FISHERIES:</u>		
North Carolina roe mullet stop net	13	Bottlenose dolphin, WNA coastal <sup>1</sup>
<u>POUND NET FISHERIES:</u>		
Virginia pound net	187	Bottlenose dolphin, WNA coastal <sup>1</sup>
Category III		
<u>GILLNET FISHERIES:</u>		
Caribbean gillnet	>991	Dwarf sperm whale, WNA West Indian manatee, Antillean
Delaware River inshore gillnet	60	None documented
Long Island Sound inshore gillnet	20	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Rhode Island, southern Massachusetts (to Monomoy Island), and New York Bight (Raritan and Lower New York Bays) inshore gillnet	32	None documented
Southeast Atlantic inshore gillnet	unknown	None documented
<u>TRAWL FISHERIES:</u>		
Atlantic shellfish bottom trawl	972	None documented
Gulf of Mexico butterfish trawl	2	Bottlenose dolphin, Northern GMX outer continental shelf Bottlenose dolphin, Northern GMX continental shelf edge and slope
Gulf of Mexico mixed species trawl	20	None documented
Southeastern U.S. Atlantic, Gulf of Mexico shrimp trawl	>18,000	Bottlenose dolphin, WNA coastal Bottlenose dolphin, Eastern GMX coastal Bottlenose dolphin, Western GMX coastal Bottlenose dolphin, GMX bay, sound, estuarine West Indian Manatee, FL
<u>MARINE AQUACULTURE FISHERIES:</u>		
Finfish aquaculture	48	Harbor seal, WNA
Shellfish aquaculture	unknown	None documented
<u>PURSE SEINE FISHERIES:</u>		
Gulf of Maine Atlantic herring purse seine	30	Harbor porpoise, GME/BF Harbor seal, WNA Gray seal, WNA
Gulf of Maine menhaden purse seine	50	None documented
Florida west coast sardine purse seine	10	Bottlenose dolphin, Eastern GMX coastal
U.S. Atlantic tuna purse seine	5	Long-finned pilot whale, WNA Short-finned pilot whale, WNA
U.S. Mid-Atlantic hand seine	>250	None documented
<u>LOGLINE/HOOK-AND-LINE FISHERIES:</u>		
Northeast/Mid-Atlantic bottom longline/hook-and-line	46	None documented

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Gulf of Maine, U.S. Mid-Atlantic tuna, shark swordfish hook-and-line/harpoon	26,223	Humpback whale, WNA
Southeastern U.S. Atlantic, Gulf of Mexico, and Caribbean snapper-grouper and other reef fish bottom longline/hook-and-line	>5,000	None documented
Southeastern U.S. Atlantic, Gulf of Mexico shark bottom longline/hook-and-line	<125	None documented
Southeastern U.S. Atlantic, Gulf of Mexico, and Caribbean pelagic hook-and-line/harpoon	1,446	None documented
<u>TRAP/POT FISHERIES</u>		
Caribbean mixed species trap/pot	>501	None documented
Caribbean spiny lobster trap/pot	>197	None documented
Florida spiny lobster trap/pot	2,145	Bottlenose dolphin, Eastern GMX coastal
Gulf of Mexico blue crab trap/pot	4,113	Bottlenose dolphin, Western GMX coastal Bottlenose dolphin, Northern GMX coastal Bottlenose dolphin, Eastern GMX coastal Bottlenose dolphin, GMX Bay, Sound, & Estuarine West Indian manatee, FL
Gulf of Mexico mixed species trap/pot	unknown	None documented
Southeastern U.S. Atlantic, Gulf of Mexico golden crab trap/pot	10	None documented
Southeastern U.S. Atlantic, Gulf of Mexico stone crab trap/pot	4,453	None documented
U.S. Mid-Atlantic eel trap/pot	>700	None documented
<u>STOP SEINE/WEIR/POUND NET FISHERIES:</u>		

Fishery Description	Estimated # of vessels/ persons	Marine mammal species and stocks incidentally killed/injured
Gulf of Maine herring and Atlantic mackerel stop seine/weir	50	Gray seal, Northwest North Atlantic Harbor porpoise, GME/BF Harbor seal, WNA Minke whale, Canadian east coast White-sided dolphin, WNA
U.S. Mid-Atlantic crab stop seine/weir	2,600	None documented
U.S. Mid-Atlantic mixed species stop seine/weir/pound net (except the North Carolina roe mullet stop net)	751	None documented
<u>DREDGE FISHERIES:</u>		
Gulf of Maine mussel	>50	None documented
Gulf of Maine, U.S. Mid-Atlantic sea scallop dredge	233	None documented
U.S. Mid-Atlantic/Gulf of Mexico oyster	7,000	None documented
U.S. Mid-Atlantic offshore surf clam and quahog dredge	100	None documented
<u>HAUL/BEACH SEINE FISHERIES:</u>		
Caribbean haul/beach seine	15	West Indian manatee, Antillean
Gulf of Mexico haul/beach seine	unknown	None documented
Southeastern U.S. Atlantic, haul/beach seine	25	None documented
<u>DIVE, HAND/MECHANICAL COLLECTION FISHERIES:</u>		
Atlantic Ocean, Gulf of Mexico, Caribbean shellfish dive, hand/mechanical collection	20,000	None documented
Gulf of Maine urchin dive, hand/mechanical collection	>50	None documented
Gulf of Mexico, Southeast Atlantic, Mid-Atlantic, and Caribbean cast net	unknown	None documented
<u>COMMERCIAL PASSENGER FISHING VESSEL (CHARTER BOAT) FISHERIES:</u>		



Atlantic Ocean, Gulf of Mexico, Caribbean commercial passenger fishing vessel	4,000	Bottlenose dolphin, Eastern GMX coastal Bottlenose dolphin, Northern GMX coastal Bottlenose dolphin, Western GMX coastal Bottlenose dolphin, WNA coastal
---	-------	---

List of Abbreviations and Symbols Used in Table 2: FL - Florida; GA - Georgia; GME/BF - Gulf of Maine/Bay of Fundy; GMX - Gulf of Mexico; NC - North Carolina; SC - South Carolina; TX - Texas; WNA - Western North Atlantic; <sup>1</sup> - Serious injuries and mortalities of this stock are greater than 1 percent, but less than 50 percent of the stock's PBR; therefore, bycatch of this stock determines this fishery's classification; <sup>2</sup> - Fishery classified by analogy.

## BILLING CODE 3510-22-C

**Classification**

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule would not have a significant economic impact on a substantial number of small entities. For convenience, the factual basis leading to the certification is repeated below.

Under existing regulations, all fishers participating in Category I or II fisheries must register under the MMPA, obtain an Authorization Certificate, and pay a fee of \$25. Additionally, fishers may be subject to a take reduction plan and requested to carry an observer. The Authorization Certificate authorizes the taking of marine mammals incidental to commercial fishing operations. NMFS has estimated that approximately 41,730 fishing vessels, most of which are small entities, operate in Category I or II fisheries, and therefore, are required to register. However, registration has been integrated with existing state or Federal registration programs for the majority of these fisheries so that the majority of fishers do not need to register separately under the MMPA. Currently, approximately 500 fishers register directly with NMFS under the MMPA authorization program.

Though this proposed rule would affect approximately 500 small entities, the \$25 registration fee, with respect to anticipated revenues, is not considered a significant economic impact. If a vessel is requested to carry an observer, fishers will not incur any economic costs associated with carrying that observer. As a result of this certification, an initial regulatory flexibility analysis was not prepared. In the event that reclassification of a fishery to Category I or II results in a take reduction plan, economic analyses of the effects of that plan will be summarized in subsequent rulemaking actions. Further, if a vessel is requested to carry an observer, fishers

will not incur any economic costs associated with carrying that observer.

This proposed rule contains collection-of-information requirements subject to the Paperwork Reduction Act. The collection of information for the registration of fishers under the MMPA has been approved by the Office of Management and Budget (OMB) under OMB control number 0648-0293 (0.15 hours per report for new registrants and 0.09 hours per report for renewals). The requirement for reporting marine mammal injuries or mortalities has been approved by OMB under OMB control number 0648-0292 (0.15 hours per report). These estimates include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding these reporting burden estimates or any other aspect of the collections of information, including suggestions for reducing burden, to NMFS and OMB (see ADDRESSES).

Notwithstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB control number.

This proposed rule has been determined to be not significant for the purposes of Executive Order 12866.

An environmental assessment (EA) was prepared under the National Environmental Policy Act (NEPA) for regulations to implement section 118 of the MMPA (1995 EA). NMFS revised that EA relative to classifying U.S. commercial fisheries on the LOF in December 2005. Both the 1995 and 2005 EA concluded that implementation of MMPA section 118 regulations would not have a significant impact on the human environment. This proposed rule would not make any significant change

in the management of reclassified fisheries, and therefore, this proposed rule is not expected to change the analysis or conclusion of the 2005 EA. If NMFS takes a management action, for example, through the development of a Take Reduction Plan (TRP), NMFS will first prepare an environmental document, as required under NEPA, specific to that action.

This proposed rule would not affect species listed as threatened or endangered under the Endangered Species Act (ESA) or their associated critical habitat. The impacts of numerous fisheries have been analyzed in various biological opinions, and this proposed rule will not affect the conclusions of those opinions. The classification of fisheries on the LOF is not considered to be a management action that would adversely affect threatened or endangered species. If NMFS takes a management action, for example, through the development of a TRP, NMFS would conduct consultation under ESA section 7 for that action.

This proposed rule would have no adverse impacts on marine mammals and may have a positive impact on marine mammals by improving knowledge of marine mammals and the fisheries interacting with marine mammals through information collected from observer programs or take reduction teams.

This proposed rule would not affect the land or water uses or natural resources of the coastal zone, as specified under section 307 of the Coastal Zone Management Act.

Dated: April 18, 2006.

John Oliver,

Deputy Assistant Administrator for Operations, National Marine Fisheries Service.

[FR Doc. 06-3838 Filed 4-21-06; 8:45 am]

BILLING CODE 3510-22-S

demonstrated. If known, identify the specific NIST staff who could serve as the NIST internal point of contact.

#### 6. Proposed Foreign Participants

Provide a representative list of the foreign organizations that might participate in the workshop, including a description of their function or business and their country of incorporation or origin.

#### 7. U.S. Stakeholder Participants (e.g., Associations, Agencies, Users, Others)

Provide a representative list of other U.S.-based organizations that are likely to participate in the workshop.

#### 8. Principal Topics

Provide a list of the suggested topics for the workshop.

#### 9. Related Site Visits and Events

Workshops can include visits to relevant business sites or events. Provide a list of suggested site visit locations, events or other areas of interest and discuss the relevance of each to the overall purpose of the proposed workshop's goals.

#### 10. Expected Outcomes/Measures of Success

Include in this section a description of:

- The anticipated benefit of the workshop for trade and market access;
- The anticipated economic impacts (in dollars);
- The potential for future opportunities for collaboration and for trade as a result of the workshop;
- The measures of success;
- The desired results of the workshop and how the results will be measured.

All recommendations must address each of the above ten points.

Dated: May 17, 2006.

Hratch G. Semerjian,  
Deputy Director.

[FR Doc. E6-7937 Filed 5-23-06; 8:45 am]  
BILLING CODE 3510-13-P

## DEPARTMENT OF COMMERCE

### National Institute of Standards and Technology

#### Visiting Committee on Advanced Technology

**AGENCY:** National Institute of Standards and Technology, Department of Commerce.

**ACTION:** Notice of public meeting.

**SUMMARY:** Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app. 2, notice is hereby given that the

Visiting Committee on Advanced Technology (VCAT), National Institute of Standards and Technology (NIST), will meet Tuesday, June 13, from 8:45 a.m. to 5 p.m. and Wednesday, June 14, from 9 a.m. to 11 a.m. The Visiting Committee on Advanced Technology is composed of fifteen members appointed by the Director of NIST who are eminent in such fields as business, research, new product development, engineering, labor, education, management consulting, environment, and international relations.

The purpose of this meeting is to review and make recommendations regarding general policy for the Institute, its organization, its budget, and its programs within the framework of applicable national policies as set forth by the President and the Congress. The agenda will include updates on NIST's activities, safety, strategic planning, and the NIST U.S. Measurement System project; a presentation on the vision for the Center for Nanoscale Science and Technology; a presentation on the NIST reconnaissance of Hurricane Katrina and Hurricane Rita; a VCAT Panel on How to Maximize NIST Impact on U.S. Innovation; and selected laboratory tours. The agenda may change to accommodate Committee business. The final agenda will be posted on the NIST Web site at <http://www.nist.gov/director/vcat/agenda.htm>.

**DATES:** The meeting will convene on June 13 at 8:45 a.m. and will adjourn on June 14, 2006, at 11 a.m.

**ADDRESSES:** The meeting will be held in the Employees Lounge, Administration Building, at NIST, Gaithersburg, Maryland. All visitors to the NIST site will have to pre-register to be admitted. Please submit your name, time of arrival, e-mail address and phone number to Carolyn Peters no later than Thursday, June 8 and she will provide you with instructions for admittance. Mrs. Peter's e-mail address is [carolyn.peters@nist.gov](mailto:carolyn.peters@nist.gov) and her phone number is (301) 975-5607.

**FOR FURTHER INFORMATION CONTACT:** Carolyn Peters, Visiting Committee on Advanced Technology, National Institute of Standards and Technology, Gaithersburg, Maryland 20899-1000, telephone number (301) 975-5607.

Dated: May 18, 2006.

William Jeffrey,

Director.

[FR Doc. E6-7953 Filed 5-23-06; 8:45 am]  
BILLING CODE 3510-13-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[I.D. 051106A]

#### Endangered and Threatened Species; Recovery Plans

**AGENCY:** National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Commerce.

**ACTION:** Notice of Availability; request for comments.

**SUMMARY:** The National Marine Fisheries Service (NMFS) announces the availability for public review of the draft revised Recovery Plan (Plan) for the western and eastern distinct population segments (DPS) of Steller sea lion (*Eumetopias jubatus*). NMFS is soliciting review and comment from the public and all interested parties on the Plan, and will consider all substantive comments received during the review period before submitting the Plan for final approval.

**DATES:** Comments on the draft Plan must be received by close of business on July 24, 2006.

**ADDRESSES:** Send comments to Kaja Brix, Assistant Regional Administrator, Protected Resources Division, Alaska Region, NMFS, Attn: Ellen Walsh. Comments may be submitted by: (1) E-mail: [SSLRP@noaa.gov](mailto:SSLRP@noaa.gov). include in the subject line the following document identifier: Sea Lion Recovery Plan. E-mail comments, with or without attachments, are limited to 5 megabytes; (2) Mail: P.O. Box 21668, Juneau, AK 99802; (3) hand delivery to the Federal Building: 709 W. 9th Street, Juneau, AK; or (4) Fax: (907) 586 7012. Interested persons may obtain the Plan for review from the above address or online from the NMFS Alaska Region website: <http://www.fakr.noaa.gov/>.

**FOR FURTHER INFORMATION CONTACT:** Shane Capron, (907 271 6620), e-mail [shane.capron@noaa.gov](mailto:shane.capron@noaa.gov); or Kaja Brix, (907 586 7235), e-mail [kaja.brix@noaa.gov](mailto:kaja.brix@noaa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

Recovery plans describe actions considered necessary for the conservation and recovery of species listed under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 *et seq.*). The ESA requires that recovery plans incorporate (1) Objective, measurable criteria that, when met, would result in a determination that the species is no longer threatened or

endangered; (2) site-specific management actions necessary to achieve the plan's goals; and (3) estimates of the time required and costs to implement recovery actions. The ESA requires the development of recovery plans for listed species unless such a plan would not promote the recovery of a particular species. NMFS' goal is to restore endangered and threatened Steller sea lion (*Eumetopias jubatus*) populations to the point where they are again secure, self-sustaining members of their ecosystems and no longer need the protections of the ESA. NMFS will consider all substantive comments and information presented during the public comment period in the course of finalizing this Recovery Plan.

The Steller sea lion was listed as a threatened species under the ESA on April 5, 1990 (55 FR 12645), due to substantial declines in the western portion of the range. In contrast, the eastern portion of the range (in southeastern Alaska and Canada) was increasing at 3 percent per year. Critical habitat was designated on August 27, 1993 (58 FR 45269), based on the location of terrestrial rookery and haulout sites, spatial extent of foraging trips, and availability of prey items. In 1997, the Steller sea lion population was split into a western distinct population segment (DPS) and an eastern DPS based on demographic and genetic dissimilarities (62 FR 30772). Due to the persistent decline, the western DPS was reclassified as endangered, while the increasing eastern DPS remained classified as threatened. Through the 1990s the western DPS continued to decline. However, the western population has shown an increase of approximately 3 percent per year between 2000 and 2004. This was the first recorded increase in the population since the 1970s. Based on recent counts, the western DPS is currently about 44,800 animals and may be increasing due to higher juvenile and adult survival. However, it remains unclear whether Steller sea lion reproduction has also improved and whether the observed 3 percent annual population growth will continue. The eastern DPS is currently between 45,000 and 51,000 animals, and has been increasing at 3 percent per year for 30 years.

The first recovery plan was completed in December 1992 and covered the entire range of the threatened species. However, the recovery plan became obsolete after the split into two DPSs in 1997. Nearly all of the recovery actions contained in the plan had also been completed. NMFS assembled a new recovery team in 2001 to revise the first

plan. The recovery team completed the draft revision in March 2006 and forwarded the plan to NMFS with unanimous endorsement by the 17 team members who represented the fishing industry, Alaska Natives, fishery and marine mammal scientists, and environmental organizations.

The Plan contains: (1) A comprehensive review of Steller sea lion ecology, (2) a review of previous conservation actions, (3) a threats assessment, (4) biological and recovery criteria for downlisting and delisting, (4) actions necessary for the recovery of the species (78 discrete actions for the western DPS), and (5) estimates of time and cost to recovery.

The threats assessment concludes that the following threats are relatively minor: (1) Alaska Native subsistence harvest, (2) illegal shooting, (3) entanglement in marine debris, (4) disease, and (5) disturbance from vessel traffic and scientific research. Although much has been learned about Steller sea lions and the North Pacific ecosystem, considerable uncertainty remains about the magnitude and likelihood of the following potential threats (relative impacts in parenthesis): competition with fisheries (potentially high), environmental variability (potentially high), killer whale predation (potentially high), incidental take by fisheries (medium), and toxic substances (medium).

In contrast, no threats were identified for the eastern DPS. Although several factors affecting the western DPS also affect the eastern DPS (e.g., environmental variability, killer whale predation, toxic substances, disturbance), these threats do not appear to be limiting recovery given the long term sustained growth of the population. However, concerns exist regarding global climate change and the potential for the southern part of the range (i.e., California) to be adversely affected. Future monitoring should target this southern portion of the range.

The Plan identifies 78 substantive actions needed to achieve recovery of the western DPS by addressing the broad range of threats. The Plan highlights three actions (detailed below) that are especially important to the recovery program for the western DPS:

1. *Maintain current fishery conservation measures:* After a long term decline, the western DPS appears to be stabilizing. The first slowing of the decline began in the 1990s suggesting that the management measures implemented in the early 1990s may have been effective in reducing anthropogenic effects (e.g., shooting, harassment, and incidental take). The

apparent population stability observed in the last 6 years is correlated with comprehensive fishery management measures implemented since the late 1990s. The current suite of management actions (or their equivalent protection) should be maintained until substantive evidence demonstrates that these measures can be reduced without limiting recovery.

2. *Design and implement an adaptive management program to evaluate fishery conservation measures:* Due to the uncertainty in how fisheries affect Steller sea lions and their habitat, and the difficulty in extrapolating from individual scientific experiments, a properly designed adaptive management program should be implemented. This type of program has the potential to assess the relative impact of commercial fisheries and to better distinguish the impacts of other threats (including killer whale predation). This program will require a robust experimental design with replication at the proper temporal and spatial scales with the appropriate levels of commercial fishing as experimental treatments. It will be a challenge to construct an adaptive management plan that meets the requirements of the ESA, is statistically sufficient, and can be implemented by the commercial fisheries. Acknowledging these hurdles, a significant effort must be made to determine the feasibility of such a program.

3. *Continue population monitoring and research on the key threats potentially impeding sea lion recovery:* Estimates of population abundance, trend, distribution, health, and essential habitat characteristics are fundamental to Steller sea lion management and recovery. Further, current information on the primary threats is insufficient to assess their impact on recovery. Focused research is needed on how these threats impact sea lion population growth and how they may be mitigated in order to facilitate recovery. In addition to studies on individual threats, the dynamics between threats needs to be better understood to assess the cumulative effects on sea lions.

Criteria for reclassification of Steller sea lion are included in the Plan. In summary, the western DPS of Steller sea lion may be reclassified from endangered to threatened when all of the following have been met: (1) Counts of non-pups in the U.S. portion of the DPS have increased for 15 years (on average); (2) the population ecology and vital rates in the U.S. region are consistent with the observed trend; (3) the non-pup trends in at least 5 of the 7 sub-regions are consistent with the

overall U.S. trend, and the population trend in any two adjacent sub-regions can not be declining significantly; and (4) all five listing factors are addressed.

The western DPS of Steller sea lion may be delisted when all of the following conditions have been met: (1) Counts of non-pups in the U.S. portion of the DPS have increased at an average annual rate of 3 percent for 30 years (i.e., 3 generations); (2) the population ecology and vital rates in the U.S. region are consistent with the observed trend; (3) the non-pup trends in at least 5 of the 7 sub-regions are consistent with the overall U.S. trend; the population trend in any two adjacent sub-regions can not be declining significantly, and the population trend in any single sub-region can not have declined by more than 50 percent; and (4) all five listing factors are addressed.

The eastern DPS of Steller sea lion may be delisted when all of the following have been met: (1) The population has increased at an average rate of 3 percent per year for 30 years (i.e., 3 generations); (2) the population ecology and vital rates are consistent with the observed trend; and (4) all five listing factors are addressed.

Time and cost for recovery actions are contained in the Plan. The recovery program for the western DPS will cost \$93,840,000 for the first 5 fiscal years and \$430,425,000 to full recovery assuming 30 years for recovery starting in 2000, and using year 5 costs as the cost for all future years. The recovery program for the eastern DPS will cost \$150,000 for the first year and \$1,050,000 total for 10 years of post-delisting monitoring.

In accordance with the 1994 peer review policy, NMFS solicited peer review on the draft Plan. Reviews were requested from 5 scientists and managers with expertise in recovery planning, statistical analyses, fisheries, and marine mammals. The reviews of the Plan were generally favorable. In particular, the reviewers found the recovery criteria to be well reasoned and supported. In response to reviewer's comments, changes were made to the plan to clarify the recovery criteria, add delisting criteria for the western DPS, and focus priorities and actions. NMFS anticipates that many of the recommendations made by the reviewers will be addressed in an implementation and research plan which NMFS intends to develop after the Plan is finalized. Reviewers' comments and NMFS' formal response to the comments will be provided in detail in the final recovery plan.

#### Public Comments Solicited

NMFS solicits written comments on the draft Revised Recovery Plan. All substantive comments received by the date specified above will be considered prior to final approval of the Plan. NMFS seeks comments particularly in the following areas: (1) The threats assessment; (2) the biological and threats criteria for removing the Steller sea lion from the Federal list of Endangered and Threatened Wildlife and Plants; (3) the recovery strategy and measures; and (4) estimates of time and cost to implement recovery actions.

#### Authority

The authority for this action is section 4(f) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*).

Dated: May 18, 2006.

Angela Somma,

Chief, Endangered Species Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. E6-7969 Filed 5-23-06; 8:45 am]

BILLING CODE 3510-22-S

#### DEPARTMENT OF COMMERCE

##### National Oceanic and Atmospheric Administration

[Docket No. 060404095-6132-02]

##### Northern Gulf of Mexico Cooperative Institute

AGENCY: Office of Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

ACTION: Notice; correction.

SUMMARY: The Office of Oceanic and Atmospheric Research (OAR) published a notice in the Federal Register on April 10, 2006 announcing availability of funds to establish a Northern Gulf of Mexico (NGOM) Cooperative Institute (CI). That notice contained an error in the description of how proposals on cost-sharing would be evaluated. This notice corrects the error.

FOR FURTHER INFORMATION CONTACT: Dr. John Cortinas, 1315 East West Highway, Room 11554, Silver Spring, Md. 20910 telephone 301-713-9397 x 206. Facsimile: (301) 713-0158; e-mail: [John.Cortinas@noaa.gov](mailto:John.Cortinas@noaa.gov).

#### SUPPLEMENTARY INFORMATION:

##### Correction

In the Federal Register of April 10, 2006, in FR Volume 71, Number 68, on page 18084, the second sentence in the section on cost sharing requirements is

incorrect. The sentence, "There is no minimum cost sharing requirement, however, the amount of cost sharing will be considered in determining the level of CI commitment under NOAA's standard evaluation of project costs" is corrected to read, "There is no minimum cost sharing requirement; however, the amount of cost sharing will be considered when determining the level of the CI's commitment under NOAA's standard evaluation criterion for overall qualifications of applicants."

All other requirements and information listed in the original notice remains the same.

#### Classification

##### Pre-Award Notification Requirements for Grants and Cooperative Agreements

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2004 (69 FR 78389) are applicable to this solicitation.

#### Limitation of Liability

Funding for years 2-5 of the Cooperative Institute is contingent upon the availability of appropriated funds. In no event will NOAA or the Department of Commerce be responsible for application preparation costs if these programs fail to receive funding or are cancelled because of other agency priorities. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

#### Paperwork Reduction Act

This notification involves collection of information requirements subject to the Paperwork Reduction Act. The use of Standard Forms 424, 424A, 424B, and SF-LLL and CD-346 has been approved by the Office of Management and Budget (OMB) respectively under control numbers 0348-0043, 0348-0044, 0348-0040, and 0348-0046 and 0605-0001. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number.

#### Executive Order 12866

It has been determined that this notice is not significant for purposes of Executive Order 12866.

#### Executive Order 13132 (Federalism)

It has been determined that this notice does not contain policies with

**DRAFT**  
**STELLER SEA LION RECOVERY PLAN**

Eastern and Western Distinct Population Segments  
(*Eumetopias jubatus*)

**FIRST REVISION**  
Original Approval: December, 1992

Prepared by

The Steller Sea Lion Recovery Team

for

National Oceanic and Atmospheric Administration  
National Marine Fisheries Services  
Office of Protected Resources

May 2006

## PREFACE

Congress passed the Endangered Species Act of 1973 (16 USC 1531 *et seq.*) (ESA) to protect species of plants and animals endangered or threatened with extinction. The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) share responsibility for the administration of the Act. NMFS is responsible for most marine mammals including the Steller sea lion.

Section 4(f) of the ESA directs the responsible agency to develop and implement a Recovery Plan, unless such a plan will not promote the conservation of a species. NMFS has determined that a Recovery Plan would promote the conservation of the eastern and western distinct population segments of Steller sea lion.

This plan was written by the Steller Sea Lion Recovery Team (Team) at the request of the Assistant Administrator for Fisheries to promote the conservation of the Steller sea lion. The recovery team includes experts on marine mammals from the private sector, academia, and government, experts on endangered species conservation, and representatives of the commercial fishing industry. The members of the recovery team are listed on page iii.

Data included in the Plan were the most up-to-date available as of May, 2006. While data collection and management actions continue, the Team does not believe that any recently collected information changes in any way our recommendations.

The Team members believe that the goals and objectives of the Plan can be achieved only if a long-term commitment is made to support the actions recommended here. Achievement of these goals and objectives will require the continued cooperation of the governments of the United States (especially the State of Alaska), Canada, and Russia. Within the United States, the shared resources and cooperative involvement of federal, state and local governments, industry, academia, non-government organizations and individual citizens will be required throughout the recovery period.

## DISCLAIMER

Recovery plans delineate actions which the best available science indicates are required to recover and protect listed species. Plans are published by the National Marine Fisheries Service, sometimes prepared with the assistance of recovery teams, contractors, state agencies and others. Objectives will be attained and any necessary funds made available subject to budgetary and other constraints affecting the parties involved, as well as the need to address other priorities. Nothing in this plan should be construed as a commitment or requirement that any federal agency obligate or pay funds in contravention of the Anti-Deficiency Act, 31, U.S.C. 1341, or any other law or regulation. Recovery plans do not necessarily represent the view of the official positions or approval of any individuals or agencies involved in the plan formulation, other than National Marine Fisheries Service. They represent the official position of the National Marine Fisheries Service only after they have been signed by the Assistant Administrator. Approved recovery plans are subject to modification as dictated by new information, changes in species status, and the completion of recovery actions. Please check for updates or revisions at the website before using this plan or implementing any of its recommendations.

Literature Citation should read as follows:

National Marine Fisheries Service. 2006. Draft Revised Recovery Plan for the Steller sea lion (*Eumetopias jubatus*). National Marine Fisheries Service, Silver Spring, MD. 285 pages.

Additional Copies May Be Obtained From:

NMFS  
Alaska Regional Office  
709 W. 9<sup>th</sup> st.  
Juneau, AK 99802-1668  
907-586-7235  
On Line: <http://www.fakr.noaa.gov>

Recovery plans can be downloaded at no cost from:  
<http://www.nmfs.noaa.gov/pr/recovery/plans.htm>

**RECOVERY TEAM MEMBERS**

<b>Team Member</b>	<b>Affiliation</b>
Dr. Robert J. Small - Chair	Alaska Department of Fish and Game
Dr. Shannon Atkinson	Alaska SeaLife Center/University of Alaska Fairbanks
Ms. Linda Behnken	Alaska Longline Fishermen's Association
Mr. Vernon Byrd	U.S. Fish and Wildlife Service
Mr. Dave Fraser	High Seas Catcher's Cooperative
Mr. Lowell Fritz	National Marine Fisheries Service
Dr. Tom Gelatt	National Marine Fisheries Service
Dr. David Hanson	Pacific States Marine Fisheries Commission
Ms. Lianna Jack	Alaska Sea Otter and Steller Sea Lion Commission
Dr. Denby Lloyd	Alaska Department of Fish and Game
Ms. Donna Parker	F/V Arctic Storm
Mr. Ken Pitcher	Alaska Department of Fish and Game
Dr. Alan Springer	Institute of Marine Science/University of Alaska Fairbanks
Mr. Ken Stump	Citizen
Dr. Andrew Trites	North Pacific Universities Marine Mammal Research Consortium
Dr. Terrie Williams	University of California Santa Cruz
Ms. Kate Wynne	University of Alaska



## **ACKNOWLEDGEMENTS**

The Steller sea lion recovery team (Team) acknowledges and thanks the following individuals for their expert advice, research results, and general guidance and assistance that allowed us to complete the monumental task of writing the Steller sea lion recovery plan.

Shane Capron, the Steller sea lion recovery coordinator for NMFS invested a tremendous amount of time and energy in guiding the Team through the recovery planning process, and also engaged the Team in critically important discussions that resulted in substantial improvements to the Plan. Don Calkins, Doug Eggers, Tom Loughlin, and Robin Samuelsen all contributed as members of the Team when our endeavor began. Al Didier demonstrated an amazing ability to accurately transcribe the important and pertinent points of the discussions at our meetings into useful meeting summaries. The following NMFS staff, especially of the Alaska Region and Science Center, provided unpublished data and reports, and substantial time and advice on most aspects of the Plan: Tammy Adams, Robyn Angliss, Vladimir Burkanov, Marilyn Dalheim, Robert DeLong, John Durbin, Tom Eagle, Brandee Gerke, Jim Hale, Lee Hulbert, Peggy Krahn, Marina Lindsey, Libby Loggerwell, Mark Lowry, Greg O'Corry-Crowe, Erika Phillips, Sharon Melin, Mike Payne, Susan Pultz, Mike Sigler, Beth Sinclair, Barbara Taylor, Johanna Vollenweider, Paul Wade, Bill Wilson, and Anne York. Several other individuals provided expert advice, including Lance Barrett-Lennard (Vancouver Aquarium), Kimberlee Beckmen (ADF&G), John Bickham (Texas A&M University), Kathy Burek (Alaska Veterinary Pathology Services), Michael Castellini (University of Alaska), Dan Hennen (Montana State University), Ken Goldman (California State University - Long Beach), Tracey Goldstein (Alaska SeaLife Center) Judy Jacobs (USFWS), Lloyd Lowry (Marine Mammal Commission), Nate Mantua (University of Washington), Craig Matkin (North Gulf Oceanic Society), Lorrie Rea (ADF&G), David Rosen (University of British Columbia), and Arliss Winship (University of British Columbia). Dan Goodman (Montana State University) developed a Population Viability Analysis that required the Team to transparently integrate their knowledge. Ed Bangs (USFWS), Don Siniff (University of Minnesota), Don Bowen (Bedford Institute of Oceanography), Bob Hofman (Marine Mammal Commission - retired), and Terry Quinn (University of Alaska) reviewed the Plan and provided comments that improved them. Teresa Fairchild and Sharon Perkins of the Pacific States Marine Fisheries Commission undertook the numerous tasks associated with putting on our meetings, including travel arrangements and lodging. Brock Bernstein (Consultant) facilitated the final two meetings.

**TABLE OF CONTENTS**

**PREFACE**..... I

**DISCLAIMER** .....II

**RECOVERY TEAM MEMBERS**..... III

**ACKNOWLEDGEMENTS**..... IV

**TABLE OF CONTENTS** ..... V

**ACRONYM LIST**..... VIII

**EXECUTIVE SUMMARY** .....1

**I. BACKGROUND**.....7

**A. SPECIES DESCRIPTION**.....7

**B. DISTRIBUTION AND POPULATION STRUCTURE** .....8

**C. OVERVIEW OF POPULATION STATUS** .....11

**D. WESTERN DPS STATUS AND TREND** .....12

        1. Alaska (U.S. portion of the range).....13

        2. Russia and Asia.....15

        3. Western DPS overall .....16

**E. EASTERN DPS STATUS AND TREND** .....16

        1. Overview .....16

        2. Southeast Alaska.....17

        3. British Columbia.....17

        4. Washington.....18

        5. Oregon.....18

        6. California .....19

        7. Eastern DPS Overall .....20

**F. HABITAT CHARACTERISTICS AND USE** .....21

        1. Terrestrial habitat use.....22

        2. Marine habitat use .....22

        3. Designated critical habitat .....23

**G. VITAL RATES**.....25

        1. Survival .....25

        2. Reproduction.....26

        3. Demographic modeling .....27

**H. FEEDING ECOLOGY**.....30

        1. Foods consumed.....30

        2. Prey characteristics.....32

        3. Foraging behavior based on telemetry studies .....33

        4. Nutritional requirements.....34

**I. ECOSYSTEM INTERACTIONS** .....35

**II. CONSERVATION MEASURES**.....61

**A. INTENTIONAL AND ILLEGAL KILLING** .....61

**B. INCIDENTAL TAKES IN COMMERCIAL FISHING** .....62

**D. RESEARCH-RELATED MORTALITY**.....64

**E. POLLUTION, CONTAMINANTS, AND ENTANGLEMENT IN MARINE DEBRIS** .....64

**F. DISTURBANCE ON TERRESTRIAL SITES AND CRITICAL HABITAT** .....65

G.	REDUCED PREY AVAILABILITY DUE TO FISHERIES.....	65
III.	FACTORS POTENTIALLY INFLUENCING THE WESTERN POPULATION .....	71
A.	PREDATION.....	71
1.	Killer whales.....	71
2.	Sharks.....	75
B.	HARVESTS AND OTHER DIRECT MORTALITY BY HUMANS.....	76
1.	Commercial harvest.....	76
2.	Subsistence harvest.....	76
3.	Incidental take by fisheries.....	78
4.	Illegal shooting.....	79
C.	ENTANGLEMENT IN MARINE DEBRIS .....	80
D.	DISEASE AND PARASITISM .....	80
E.	TOXIC SUBSTANCES.....	82
F.	REDUCED PREY BIOMASS AND QUALITY .....	84
1.	Overview .....	84
2.	Environmental variability.....	85
3.	Fishing .....	86
4.	Inter-specific competition .....	88
5.	Nutritional stress.....	89
G.	DISTURBANCE.....	94
H.	GLOBAL CLIMATE CHANGE.....	94
IV.	THREATS ASSESSMENT FOR THE WESTERN POPULATION .....	97
A.	OVERVIEW OF THE ASSESSMENT.....	97
1.	Direct threats.....	97
2.	Indirect threats .....	98
3.	Relative impacts between threats .....	99
B.	IMPACT OF INDIVIDUAL THREATS .....	101
1.	Predation by killer whales - POTENTIALLY HIGH.....	101
2.	Environmental variability - POTENTIALLY HIGH.....	102
3.	Competition with Fisheries - POTENTIALLY HIGH.....	102
4.	Incidental take due to interactions with active fishing gear - MEDIUM.....	104
5.	Toxic substances - MEDIUM.....	104
6.	Alaska native subsistence harvest - LOW.....	105
7.	Illegal shooting - LOW.....	105
8.	Entanglement in marine debris - LOW.....	106
9.	Disease and parasites - LOW.....	106
10.	Disturbance from vessel traffic and tourism - LOW.....	106
11.	Disturbance due to research activities - LOW.....	107
C.	CUMULATIVE EFFECTS OF THREATS.....	107
1.	Top-down factors .....	108
2.	Bottom-up factors.....	108
D.	SUMMARY AND SCENARIOS .....	109
1.	Predation scenario.....	110
2.	Environmental variability or regime shift scenario .....	110
3.	Fishing scenario .....	111
4.	Multiple threat scenario .....	111
5.	Distinguishing the relative impact of threats.....	112
V.	RECOVERY PLAN FOR THE WESTERN POPULATION.....	113
A.	GOALS .....	113
B.	RECOVERY STRATEGY .....	113
C.	RECLASSIFICATION CRITERIA .....	115

1.	Development of the biological criteria .....	115
2.	Downlisting to threatened .....	117
3.	Delisting .....	120
D.	RECOVERY ACTION OUTLINE AND NARRATIVE .....	124
E.	RECOVERY ACTION IMPLEMENTATION SCHEDULE .....	157
VI.	FACTORS POTENTIALLY INFLUENCING THE EASTERN POPULATION .....	164
A.	IMPACT OF INDIVIDUAL THREATS .....	164
1.	Predation .....	164
2.	Harvests, killing, and other human impacts .....	166
3.	Entanglement in debris .....	166
4.	Parasitism and disease .....	167
5.	Toxic substances.....	167
6.	Global climate change.....	168
7.	Reduced prey biomass and quality .....	169
8.	Disturbance .....	170
B.	CUMULATIVE EFFECTS .....	171
C.	THREATS ASSESSMENT .....	171
VII.	RECOVERY PLAN FOR THE EASTERN POPULATION .....	172
A.	GOALS .....	172
B.	RECOVERY STRATEGY .....	172
C.	RECLASSIFICATION CRITERIA .....	173
1.	Delisting criteria .....	173
D.	RECOVERY ACTIONS OUTLINE AND NARRATIVE .....	177
E.	RECOVERY ACTIONS IMPLEMENTATION SCHEDULE .....	178
F.	POST-DELISTING MONITORING PLAN.....	178
VIII	LITERATURE CITED.....	180
	APPENDIX 1. MANAGING AND MAINTAINING STELLER SEA LION PREY FIELDS.....	210
	APPENDIX 2. NUTRITIONAL STRESS IN STELLER SEA LIONS .....	214
	APPENDIX 3 A PVA MODEL FOR EVALUATING RECOVERY CRITERIA FOR STELLER SEA LIONS.....	218

## **ACRONYM LIST**

*The following is a list of acronyms and terms used throughout the plan*

ADF&G - Alaska Department of Fish and Game  
AKR - Alaska Regional Office  
AFSC - Alaska Fisheries Science Center  
BEST - Bering Ecosystem Study  
DEIS - Draft Environmental Impact Statement  
DPS - Distinct population segment  
Delisting - removal from the List of Endangered and Threatened Wildlife and Plants  
EBS - Eastern Bering Sea  
EEZ - Exclusive Economic Zone  
EIS - Environmental Impact Statement  
EPA - U.S. Environmental Protection Agency  
ESA - Endangered Species Act  
FOCI - Fisheries-Oceanography Coordinated Investigations (NOAA)  
FMP - Fisheries Management Plan  
FWS - Fish and Wildlife Service  
Team - Steller sea lion recovery team  
List - Federal List of Endangered and Threatened Wildlife and Plants  
MARPOL - International Convention for the Prevention of Pollution from Ships  
MMC - Marine Mammal Commission  
MMPA - Marine Mammal Protection Act  
mtDNA - Mitochondrial DNA  
nm - Nautical Miles  
NMFS - National Marine Fisheries Service  
NOAA - National Oceanic and Atmospheric Administration  
NPFMC - North Pacific Fishery Management Council  
PBR - Potential Biological Removal  
Plan - Steller sea lion recovery plan  
PVA - Population viability analysis  
TDR - Time-depth recorder  
UME - Unusual mortality event  
USCG - United States Coast Guard  
USFWS - United States Fish and Wildlife Service  
VMS - Vessel monitoring system

## EXECUTIVE SUMMARY

**CURRENT SPECIES STATUS:** The Steller sea lion (*Eumetopias jubatus*) was listed as a threatened species under the ESA on April 5, 1990 (55 FR 12645) due to substantial declines in the western portion of the range. In contrast, the eastern portion of the range (in southeastern Alaska and Canada) was increasing at 3% per year. Critical habitat was designated on August 27, 1993 (58 FR 45269) based on the location of terrestrial rookery and haulout sites, spatial extent of foraging trips, and availability of prey items. In 1997, the Steller sea lion population was split into a western distinct population segment (DPS) and an eastern DPS based on demographic and genetic dissimilarities (62 FR 30772). Due to the persistent decline, the western DPS was reclassified as endangered, while the increasing eastern DPS remained classified as threatened. Through the 1990s the western DPS continued to decline. However, the western population has shown an increase of approximately 3% per year between 2000 and 2004. This was the first recorded increase in the population since the 1970s. Based on recent counts, the western DPS is currently about 44,800 animals and may be increasing due to higher juvenile and adult survival. However, it remains unclear whether Steller sea lion reproduction has also improved and whether the observed 3% annual population growth will continue. The eastern DPS is currently between 45,000 and 51,000 animals, and has been increasing at 3% per year for 30 years.

**RECOVERY PLAN:** The first recovery plan was completed in December 1992 and covered the entire range of the threatened species. However, the recovery plan became obsolete after the split into two DPSs in 1997. Nearly all of the recovery actions contained in the plan had also been completed. Therefore, in 2001, NMFS assembled a new recovery team to revise the Plan. The recovery team completed the draft revision in March 2006 and forwarded the Plan to NMFS with unanimous endorsement by the 17 team members who represented the fishing industry, Alaska Natives, fishery and marine mammal scientists, and environmental organizations. The Plan contains: (1) a comprehensive review of Steller sea lion status and ecology, (2) a review of previous conservation actions, (3) a threats assessment, (4) biological and recovery criteria for downlisting and delisting, (5) actions necessary for the recovery of the species, and (6) estimates of time and cost to recovery.

**OVERVIEW:** There appear to be two very distinct phases in the decline of the western DPS. The population declined about 70% between the late 1970s and 1990, but the initial decline likely began as early as the late 1950s in some areas. The rate of decline in the 1980s was very rapid, reaching about 15% per year during 1985-89. During this period, mortality incidental to commercial fishing was thought to contribute to perhaps as much as 25% of the observed decline. In addition, during that period it was legal for fishermen to protect their gear and catch by shooting Steller sea lions. Unfortunately, adequate records on the magnitude of such takes are not available. Some evidence indicates that animals in this population were nutritionally stressed during this time period, while other sources of mortality (e.g., predation by killer whales, mortality associated with disease) cannot be quantified due to a lack of information. There were distinct differences in the rates and pattern of decline in the six subareas used to monitor this population; eastern Gulf, central Gulf, western Gulf, eastern Aleutians, central Aleutians, and western Aleutians. Therefore, it is possible that several factors were important in driving the population decline during this time period.

In the 1990s, the rate of decline decreased from 15% to 5% per year. This followed further environmental changes in the 1990s and the implementation of extensive fishery regulations intended to reduce direct impacts such as shooting and indirect impacts such as competition for prey. During this decade, the Steller sea lions did not appear to be nutritionally stressed. The primary factors associated with the decline during this period have not been identified. As was the case in the 1980s, the pattern and rate of declines in abundance varied significantly by subregion.

In the late 1990s and early 2000s NMFS reviewed federally managed groundfish fisheries in Alaska, in a series of consultations under section 7 of the ESA. Two of those consultations resulted in a determination that the commercial fisheries were likely to jeopardize the continued existence of the western DPS of Steller sea lion and adversely modify its critical habitat. Therefore, as required under the ESA, additional conservation measures were implemented to avoid jeopardy and adverse modification. These measures were expected to promote the recovery of Steller sea lions in areas where potential competition from commercial fisheries may have contributed to the population decline.

It is plausible that the conservation measures implemented since 1990 are positively affecting the recovery of the western DPS. A positive correlation exists between increasing trends and fishery conservation measures; however, it is not known whether the increasing trend is a result of management actions, natural changes in the ecosystem, or some other factor.

**COMPLETED RECOVERY ACTIONS:** The 1992 recovery plan included 61 discrete recovery actions (or tasks) with estimated costs and responsible parties associated with those tasks. In our review, each of the 61 tasks has been accomplished to a substantial degree with one exception, which was to develop international conservation agreements. Much of the effort was focused on eliminating the most direct, and likely, causes of the decline (e.g., shooting, incidental take). These efforts are detailed in the Plan, and include the following:

- substantial reduction in disturbance of important rookeries and haulouts;
- substantial reduction in the incidental catch of Steller sea lions in commercial fishing operations, particularly the groundfish trawl fishery;
- significant efforts to reduce intentional take by prohibiting shooting at or near Steller sea lions
- intensive research to better describe the threats to Steller sea lions and provide management with options for recovery actions;
- substantial reduction in the potential for competitive interactions between commercial fisheries for pollock, Atka mackerel, and Pacific cod in Alaska;
- acquired additional information on the status, foraging ecology, and survivorship of Steller sea lions.

**THREATS TO THE RECOVERY OF STELLER SEA LIONS:** The extensive research program has increased the understanding of the relative impacts of threats that potentially impede the recovery of Steller sea lions. For the western DPS, the threats assessment concludes that the following threats are relatively minor: (1) Alaska Native subsistence harvest, (2) illegal shooting,

(3) entanglement in marine debris, (4) disease, and (5) disturbance from vessel traffic and scientific research. Although much has been learned about Steller sea lions and the North Pacific ecosystem, considerable uncertainty remains about the magnitude and likelihood of the following potential threats to recovery of the western DPS (relative impacts in parenthesis): competition with fisheries (potentially high), environmental variability (potentially high), killer whale predation (potentially high), incidental take by fisheries (medium), and toxic substances (medium).

In contrast, no threats were identified for the eastern DPS. Although several factors affecting the western DPS also affect the eastern DPS (e.g., environmental variability, killer whale predation, toxic substances, disturbance), these threats do not appear to be limiting recovery given the long term sustained growth of the population. However, concerns exist regarding global climate change and the potential for the southern part of the range (i.e., California) to be adversely affected. Future monitoring should target this southern portion of the range.

**RECOVERY GOAL:** The goal of this recovery plan is to restore endangered and threatened Steller sea lion populations to the point where they are again secure, self-sustaining members of their ecosystems, allowing initially for reclassification of the western DPS to threatened status and, ultimately, removal from the List of Endangered and Threatened Wildlife (List). The eastern DPS has been recovering for about 30 years and should be considered for removal from the List.

**RECOVERY CRITERIA:**

**The western DPS of Steller sea lion will be considered for reclassification to "threatened" if all the following conditions are met:**

1. The population for the U.S. region has increased (statistically significant) for 15 years on average, based on counts of non-pups (i.e., juveniles and adults).
2. The population ecology and vital rates in the U.S. region are consistent with the trend observed under criterion 1. Certain vital rates are assumed necessary for long term growth. As a check on criterion 1, available information on pup counts, production (fecundity), juvenile survival rates, population age structure, gender ratios, and other observations should be examined to determine whether they support the observed population trend under criterion 1.
3. The trends in non-pups in at least 5 of the 7 sub-regions are consistent with the trend observed under criterion #1. The population trend in any two adjacent sub-regions can not be declining significantly. Available information on the population ecology and vital rates for the sub-regions is consistent with the respective sub-region trend. The 7 sub-regions are:
  - a. Eastern Gulf of Alaska (US)
  - b. Central Gulf of Alaska (US)
  - c. Western Gulf of Alaska (US)
  - d. Eastern Aleutian Islands (including the eastern Bering Sea) (US)



- e. Central Aleutian Islands (US)
- f. Western Aleutian Islands (US)
- g. Russia/Asia

4. The ESA listing factor criteria in Section V.C.2 are met.

**The western DPS of Steller sea lion will be considered for delisting if all the following conditions are met:**

1. The population for the U.S. region has increased at an average annual growth rate of 3% per year for 30 years (i.e., 3 generations) based on counts of non-pups (i.e., juveniles and adults).
2. The population ecology and vital rates in the U.S. region are consistent with the trend observed under criterion 1. Certain vital rates are assumed necessary for long term growth. As a check on criterion 1, available information on pup counts, production (fecundity), juvenile survival rates, population age structure, gender ratios, and other observations should be examined to determine whether they support the observed population trend under criterion 1.
3. The trends in non-pups in at least 5 of the 7 sub-regions are stable or increasing, consistent with the trend observed under criterion #1. The population trend in any two adjacent sub-regions can not be declining significantly. The population trend in any sub-region can not have declined by more than 50%. Available information on the population ecology and vital rates for the sub-regions is consistent with the respective sub-region trend. The 7 sub-regions are:
  - a. Eastern Gulf of Alaska (US)
  - b. Central Gulf of Alaska (US)
  - c. Western Gulf of Alaska (US)
  - d. Eastern Aleutian Islands (including the eastern Bering Sea) (US)
  - e. Central Aleutian Islands (US)
  - f. Western Aleutian Islands (US)
  - g. Russia/Asia

4. The ESA listing factor criteria in Section V.C.3 are met.

**The eastern DPS of Steller sea lion will be considered for delisting if all the following conditions are met:**

1. The population has increased at 3% per year for 30 years.
2. The population ecology and vital rates in the U.S. region are consistent with the trend observed under criterion 1, to ensure the population is increasing in a sustainable manner. Specifically, available information on pup counts, fecundity, juvenile survival rates, population age structure, gender ratios, and other observations should be examined to determine that they indicate an increasing population.

3. The ESA listing factor criteria in Section VII.C.1 are met.

**ACTIONS NEEDED:** The Plan identifies 78 substantive actions needed to achieve recovery of the western DPS by addressing the broad range of threats, and is geared toward three main objectives: (1) the collection of information on status and vital rates, (2) research programs to collect information on the remaining threats to recovery, including fisheries and other anthropogenic factors, and (3) the implementation of conservation measures to remove impacts of remaining threats to recovery. The Plan highlights three actions (below) that are especially important to the recovery program for the western DPS:

**Maintain current fishery conservation measures (Action 2.6.6)**

After a long term decline, the western DPS appears to be stabilizing. The first slowing of the decline began in the 1990s suggesting that the management measures implemented in the early 1990s may have been effective in reducing anthropogenic effects (e.g., shooting, harassment, and incidental take). The apparent population stability observed in the last 6 years is correlated with comprehensive fishery management measures implemented since the late 1990s. The current suite of management actions (or their equivalent protection) should be maintained until substantive evidence demonstrates that these measures can be reduced without limiting recovery.

**Design and implement an adaptive management program to evaluate fishery conservation measures (Action 2.6.8)**

Due to the uncertainty in how fisheries affect Steller sea lions and their habitat, and the difficulty in extrapolating from individual scientific experiments, a properly designed adaptive management program should be implemented. This type of program has the potential to assess the relative impact of commercial fisheries and to better distinguish the impacts of other threats (including killer whale predation). This program will require a robust experimental design with replication at the proper temporal and spatial scales with the appropriate levels of commercial fishing as experimental treatments. It will be a challenge to construct an adaptive management plan that meets the requirements of the ESA, is statistically sufficient, and can be implemented by the commercial fisheries. Acknowledging these hurdles, we must make a significant effort to determine the feasibility of such a program.

**Continue population monitoring and research on the key threats potentially impeding sea lion recovery**

Estimates of population abundance, trend, distribution, health, and essential habitat characteristics are fundamental to Steller sea lion management and recovery. Further, current information on the primary threats is insufficient to assess their impact on recovery. Focused research is needed on how these threats impact sea lion population growth and how they may be mitigated in order to facilitate recovery. In addition to studies on individual threats, the dynamics between threats needs to be better understood to assess the cumulative effects on sea lions.

**TOTAL ESTIMATED COST OF RECOVERY:**

**Western DPS: \$93,840,000 for the first 5 fiscal years; \$430,425,000 to full recovery assuming 30 years for recovery starting in 2000 and using year 5 costs in this Plan as the cost for all future years**

**Eastern DPS: \$ 150,000 for the first year; \$1,050,000 total for 10 years post-delisting monitoring**

**ANTICIPATED DATE OF RECOVERY:** For the western DPS, the time to recovery is somewhat predictable if the current population trajectory continues. If the population continues to increase (based on the 3% increasing trend counts since 2000), it would be eligible for consideration for downlisting to threatened status within 9 years (i.e., by 2015). If that trend continues further, as has been the case for the eastern DPS, then consideration for delisting is possible by 2030. As more information is obtained on the threats, their impact on sea lions, and how they can be effectively mitigated, more robust projections about the time to recovery, and its expense, will be developed.

The eastern DPS appears to have recovered from predator control programs in the 20th century which extirpated animals at rookeries and haulouts. Currently, no substantial threats are evident, and the population continues to increase at approximately 3% per year. The primary action in the plan is to initiate a status review for the eastern DPS and consider removing it from the federal List of Endangered Wildlife and Plants (potentially in 2006 or 2007).

# The Distribution of Seabirds on the Alaskan Longline Fishing Grounds: Implications for Seabird Avoidance Regulations

Edward F. Melvin<sup>1</sup>, Michelle D. Wainstein<sup>1</sup>, Kimberly S. Dietrich<sup>1</sup>,  
Kelly L. Ames<sup>2</sup>, Tracee O. Geernaert<sup>2</sup> and Loveday L. Conquest<sup>3</sup>

<sup>1</sup>Washington Sea Grant Program, University of Washington

<sup>2</sup>International Pacific Halibut Commission

<sup>3</sup>School of Aquatic and Fishery Sciences, University of Washington



**Washington Sea Grant Program**

University of Washington  
3716 Brooklyn Avenue N.E.  
Seattle, WA 98105-6716  
Campus Mail: Box 355060  
206.543.6600  
Fax: 206.685.0380

[seagrant@u.washington.edu](mailto:seagrant@u.washington.edu)

[wsg.washington.edu](http://wsg.washington.edu)



International Pacific  
Halibut Commission



NOAA Fisheries Service



# Executive Summary

Seabird mortality in longline fisheries is a worldwide marine conservation problem. In the Alaska groundfish longline fisheries, incidental seabird mortality averaged 13,144 birds per year from 1993 to 2004, peaking at 26,269 seabirds in 1998. Procellariiform (or “tubenose”) seabirds, which include albatross species, were the most frequently caught.

The short-tailed albatross, an endangered species under the U.S. Endangered Species Act, is the focus of regulatory and conservation attention in the Alaska longline fisheries. The U.S. Fish and Wildlife Service’s (USFWS) Biological Opinion specifies that short-tailed albatross takes exceeding six within a two-year period (four in the groundfish fishery and two in the Pacific halibut fishery) would trigger re-initiation of a Section 7 consultation in these respective fisheries and consequently, could interrupt or close Alaska’s \$320 million (ex-vessel value) groundfish and halibut longline fisheries.

In December 2001, the North Pacific Fishery Management Council took final action on seabird avoidance measures required in the Alaska longline fisheries for groundfish and Pacific halibut. These revised seabird avoidance requirements were based on the results of a study done in collaboration with industry on vessels fishing exclusively in open waters of the Bering Sea and Gulf of Alaska (GOA). During Council deliberations, the need for seabird avoidance devices for vessels fishing Alaskan inside waters — defined as Prince William Sound (PWS), Southeast Alaska (SEAK), and state waters of Cook Inlet (CI) for the purposes of seabird avoidance regulations — was strongly questioned. The Council acknowledged that albatrosses and other pelagic seabirds are unlikely to occur within these areas but that data on the distribution of these seabirds were insufficient to rule out the need for seabird mitigation in these inside waters. Ultimately, a less stringent set of regulations was adopted for vessels fishing inside waters as compared to vessels fishing all other waters of Alaska.

Given the paucity of data on seabird distribution in Alaskan waters and the need to manage Alaska’s longline fisheries based on the best available science, Washington Sea Grant Program (WSGP) developed a three-year collaborative program with the International Pacific Halibut Commission (IPHC), the National Marine Fisheries Service (NMFS) Alaska Fisheries Science Center Auke Bay Laboratory, and the Alaska Department of Fish and Game (ADFG) to collect seabird distribution data in the course of Pacific halibut and sablefish stock assessment surveys on longline vessels. In this report, we provide the most current and comprehensive data on the distribution patterns of seabirds on the Alaskan longline fishing grounds and recommend regulatory changes based on analyses of this unique data set.

Seabird data were collected from 2002-2004 during four summer longline stock assessment surveys: IPHC halibut surveys, NMFS sablefish surveys, ADFG Southeast Inside sablefish surveys, and

ADFG Prince William Sound sablefish surveys. The number of seabirds by species or species group was recorded within a 50-m radius of each survey vessel’s stern immediately after each set was retrieved, providing a snapshot of presence and absence of species and their relative abundance. Seabird sightings at each survey station across all three years were compared among eight geographic regions, comprised of two inside waters areas (PWS and SEAK) and six outside waters areas (all other Alaskan waters). Because only one survey station was located within the inside waters of CI, this area was not included in quantitative analyses of inside waters.

An average of 1,456 stations were surveyed each year, and a total of 230,452 birds were observed over three years. Most birds seen were tubenose seabirds (85% of all birds sighted), and of these, most were northern fulmars (71% of all birds sighted) or albatrosses (13% of all birds sighted). Albatrosses occurred throughout the fishing grounds in outside waters. Short-tailed albatrosses were extremely rare (0.03% of all sightings) and had a similar distribution to Laysan albatrosses — rare or absent east and south of the Western GOA and most abundant in the Aleutian Islands. Black-footed albatrosses were more ubiquitous, occurring in all outside waters.

Albatrosses and other tubenose species (fulmars and shearwaters) were absent in our observations of PWS, and extremely rare in SEAK. When sighted in SEAK, tubenose birds were geographically limited to the mouth of Chatham Strait and Dixon Entrance, making area management very tractable. Our survey data were insufficient to evaluate seabird distributions in CI.

Seabird data from the North Pacific Pelagic Seabird Database (NPPSD) and US Fish and Wildlife Service (USFWS) provided an expanded temporal and spatial assessment of seabird distribution in inside waters, spanning up to 26 years and including Cook Inlet. These data corroborated our findings, demonstrating that albatrosses were exceedingly rare or absent, and shearwaters and fulmars uncommon to absent, in all inside waters.

Collectively, data from our surveys and all other available sources strongly suggest that longline fishing poses little to no risk to albatrosses and other tubenose seabirds in Alaskan inside waters. Although longline fishing may pose some small degree of risk to seabird species that were sighted in inside waters (northern fulmars and shearwaters in highly localized areas of PWS and CI, black-legged kittiwakes in PWS, and gulls in all inside waters), none of these species are USFWS-identified birds of conservation concern. In addition, less than 5% of the longline takes of these species occurs in the GOA, strongly suggesting that the relative risk to these species is low in this region. Finally, the characteristics of most vessels fishing inside waters (considerably fewer hooks set, hooks set at slower speeds so they sink quickly, and little or no offal production) make them generally unattractive to seabirds, reducing the risk of incidental mortality even further.

## Recommendations

### Inside Waters

- We recommend that seabird avoidance requirements be eliminated for longline vessels fishing in the inside waters of Prince William Sound (NMFS Area 649), Southeast Alaska (NMFS Area 659), and state waters of Cook Inlet. Currently, in inside waters, these regulations require vessels 26-32 ft and 32-55 ft (without masts, poles, or rigging) to tow one buoy bag line, and vessels 32-55 ft (with masts, poles, or rigging) and > 55 ft to tow a single streamer line. If implemented, this action would affect 42% of the Alaska longline fleet, which lands 10% of the Alaska longline catch. Of this affected segment of the fleet, 85% are small vessels ( $\leq 55$  ft) and over half fish with snap-on gear.
- The presence of black-footed albatrosses, northern fulmars, and shearwaters in southern Chatham Strait and Dixon Entrance of the Southeast Alaska region suggests increased risk to seabirds from longline fishing in these small areas. If this risk is deemed significant, the definition of inside waters (for the purpose of seabird avoidance regulations) could be amended to exclude these areas. Specifically, ADFG statistical areas 345603 and 345534 in Chatham Strait, and 325431 and 325401 in Dixon Entrance could be reclassified as “outside waters”, where seabird avoidance regulations would continue to be required.

### Outside Waters

- Based on these data, we recommend that existing seabird avoidance requirements be maintained in all outside waters. For recommendations on small vessels fishing fixed gear in outside waters, see also *Seabird Avoidance Measures for Small Alaskan Longline Vessels* by Melvin and Wainstein (WSGP 2006, p.19).

### Research

- Our seabird sighting data have proven extremely valuable with regard to ecosystem-based fisheries management. We strongly support efforts to institutionalize the collection and management of seabird observation data from fish stock assessment surveys at NMFS and IPHC. We also strongly support making these data available through the NPPSD.
- We strongly encourage efforts to expand this seabird survey protocol to all Alaska and Northwest Fisheries Science Center surveys to broaden the temporal and spatial scope of this data set for application to other fisheries. Incorporating this protocol into North Pacific Groundfish Observer Program data collection should also be explored to expand temporal and spatial coverage.

DRAFT – Not for circulation or citation

# **Design and Distribution of Free Lightweight Streamer Lines for Longline Vessels in Alaska**

**Sunny Rice and Paula Cullenberg  
Alaska Sea Grant Marine Advisory Program  
University of Alaska Fairbanks**



**Prepared for Greg Balogh  
United States Fish and Wildlife Service  
Endangered Species Program**

April 2006

**Executive Summary**

Commercial longliners in Alaska have the potential to catch seabirds on their baited gear as it sinks. Of particular concern is the endangered short-tailed albatross. As a result, the National Marine Fisheries Service (NMFS), in conjunction with the United States Fish and Wildlife Service (USFWS) developed regulations that require commercial fishermen to employ bird deterrent devices while fishing. In most cases, the use of streamer lines is required. Prior to these regulations in 2000, and in conjunction with the Seattle-based large boat longline fleet, the USFWS and Pacific States Marine Fisheries Commission (PSMFC) designed and distributed free streamer lines for voluntary use on this fleet. These lines were very effective in deterring seabird attacks on bait on the large boat longline fleet. When the regulations were implemented in 2003, smaller vessels obtained these free lines and used them on their vessels, as well.

The main line of these streamers was 300 ft long and constructed of 3/8-in blue steel poly, a sturdy material chosen for its durability. When used on smaller vessels with lower or no masts, however, the relatively heavy main line would sag to the water, increasing the likelihood of it becoming entangled with the longline gear as it was being set. Two participants in the “Field Evaluation of Seabird Deterrent Gear Tests and Alternatives for Alaska Small Longline Vessels” project experimented with creating streamer lines of lighter-weight material and found that doing so allowed the streamer to remain airborne farther behind the vessel and thus minimized the chances of entanglement in the fishing gear. In response, USFWS committed to fund the design, testing, production and free distribution of lightweight streamer lines for small longline vessels. With this funding, the University of Alaska Sea Grant Marine Advisory Program (MAP) began a project in 2005 to create, test, advertise, and arrange the distribution of these lines. Production and actual distribution of the lines was again undertaken by the PSMFC.

Under the advice of Ed Melvin with Washington Sea Grant and the USFWS, Mark Lundsten was contracted to create a prototype lightweight streamer line that met regulatory performance standards on small longline vessels and was constructed of readily available and relatively inexpensive materials. Three prototype lines were delivered to the Petersburg MAP office and one was sent to Dan Falvey, a Sitka troller who had previously worked with Melvin, for further testing.

Streamer line “A” was constructed of 3/16-in yellow poly line with orange rubber streamers and was 300 ft long. This line was tested using a half-full gallon milk jug as drag on the 58-ft LOA *F/V Logan T*, owned by John Swanson of Petersburg. In these trials, the 40-m performance standard for smaller vessels was easily met at even the lowest (12 ft above water) attachment height and slowest setting speeds (3 knots). The 60-m performance standard for larger vessels was met at typical (25 ft above water line) attachment points and setting speeds (6 knots) for this vessel.

Streamer line “B” was created of similar material but was 150 ft in length. The streamers on this line were tied to snaps, so as to be detachable from the main line of the streamer. This version was created for trollers who may want to run the main line through their



## Draft – not for citation or circulation

gurdies and snap on the streamers as the line is deployed. Falvey received this line and tested it on his vessel. He was generally pleased with this line, but suggested that it did not need to be distributed on a reel.

Two versions of the 150-ft streamer line “C” were provided, one constructed of 3/16-in yellow poly and the second of #96 round braid nylon twine. Both were tested on the *F/V Moonshadow*, a 37-ft LOA sternpicking gillnetter owned by Arnold Enge in Petersburg. A half-full gallon milk jug was used as drag in all tests. Both lines reached the 40-m performance standard at all heights and setting speeds tested. When attached 12.5 ft above the water and setting at 6 knots into a 10-knot headwind, the yellow poly line also reached the 60-m performance standards. After interviewing the skipper and noting the slight performance differences, it was determined that the poly line would be the better choice for production.

The Pacific States Marine Fisheries Commission coordinated the production and distribution of the lines. Three new streamer lines were made available, in buckets bearing stickers with the following designations:

- Contents: Two (2) 150-foot streamer lines made of 3/16” poly. For use on any vessel setting snap-on gear. Not for use on vessels >55’ setting conventional (stuck) gear
- Contents: Two (2) 150-foot streamer lines made of 3/16” poly with detachable streamers. For use on vessels using snap-on gear AND using gurdies or spools to deploy/retrieve streamer lines. Not for use on vessels >55’ setting conventional (stuck) gear.
- Contents: Two (2) 300-foot streamer lines made of 3/16” poly. For use on any vessel using conventional (stuck) gear.

Included in each bucket were instructions for use and a collection of tips for using streamer lines gathered from fishermen participating in this and the previous project.

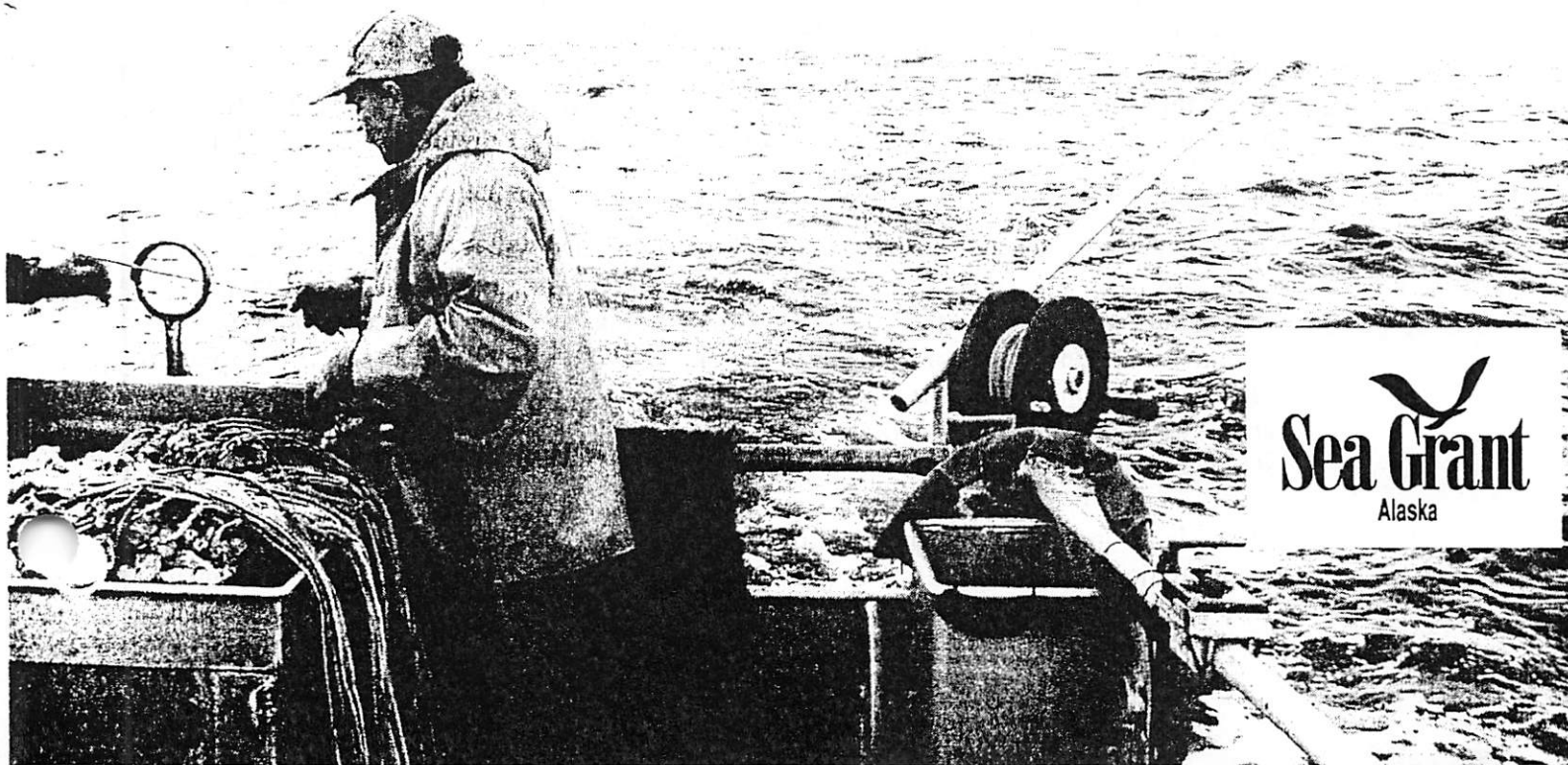
Streamer lines were made available to the longline fleet through four channels. PSMFC added an electronic request form to their webpage and also created a direct e-mail address. In addition, a flyer advertising the lines’ availability and containing a mail-in request form was mailed to all Federal Fisheries Permit holders with vessels under 55 ft LOA. Finally, lines were sent to distribution points in Dutch Harbor, Kodiak, Homer, Seward, Cordova, Yakutat, Juneau, Sitka, Petersburg, Ketchikan, Craig, and Seattle. As of March 2006, 592 pairs of streamer lines have been distributed for free by PSMFC to the Alaskan longline fleet. Of those, 230 were the original heavier lines, 60 were 150-ft lightweight lines with snap-on streamers, 140 were 150-ft lightweight lines with attached streamers, and 162 were 300-ft lightweight lines.

# Field Evaluation of Seabird Deterrent Gear and Alternatives for Alaska Small Longline Vessels

Sunny Rice, Torie Baker, and Paula Cullenberg

Alaska Sea Grant Marine Advisory Program  
University of Alaska Fairbanks

March 2006



  
Sea Grant  
Alaska

## Executive Summary

Where seabirds are present, commercial longline vessels in Alaska have the potential to catch seabirds in their gear, in particular, species of special concern such as the endangered short-tailed albatross. As a result, the National Marine Fisheries Service (NMFS) in conjunction with the United States Fish and Wildlife Service (USFWS) developed regulations requiring commercial fishermen to deploy bird deterrent devices while fishing.

In 2003 and 2004, the Alaska Sea Grant Marine Advisory Program undertook a collaborative demonstration project, with funds provided by the USFWS, to develop practical ways of reducing bird interactions with longline gear deployed by small vessels. We relied upon the cooperation and ingenuity of small vessel owners to accomplish this goal. We did not evaluate the novel methods for effectiveness in deterring seabirds; rather, we examined the logistical and economic practicalities of using the new methods. Six projects were undertaken with halibut longline vessels from ports ranging from Southeast Alaska to Kodiak.

One project involved construction and **testing of a custom-made davit** that allowed a small sternpicker vessel to fly the required streamer lines with less risk of fouling the streamer line on the sinking groundline. The davit and adapted streamer line were tested against the NMFS published performance standard for 32 ft LOA vessels setting snap gear, which requires that the streamer remain aloft for 65.6 ft (20 m) behind the vessel and within 6.6 ft (2 m) horizontally of the point where the main groundline enters the water. Streamer line performance standards for this vessel type can be met using this device and a lightweight streamer line.

Two projects tested the ability of variously **weighted groundline** to increase the sink rate of baited gear and thus reduce gear exposure to seabirds. Sink rate was measured against an international standard target rate of 0.3 m/s. Heavier, 3/8-in leaded Manline and standard 1 1/3-in, 5/16-in, and 1/4-in unleaded groundline were tested on a twin jet bowpicker side-setting conventional gear, a single outdrive bowpicker setting and retrieving gear over the bow with snap-on gear, and a single-prop sternpicker setting and retrieving snap-on gear over the stern. Sink rates ranged from 0.08 to 0.2 m/s and did not reach the international standard.

In a related project, nine 5-lb snap-on weights and two 8-lb junction weights were added to the 3/8-in leaded Manline, and a sink rate of 0.26 m/s was achieved. While this configuration approached the international target sink rate, the gear was found to be impractical. Using 56 lbs or 11 weights per skate would require a vessel to carry upwards of 1,000 additional pounds if 10 skates were being deployed. For smaller vessels, this amount would have a considerably negative impact on deck safety, boat handling, and stowage requirements.

Methods for improving the practicality of two types of deterrent gear currently required by regulation were evaluated in two additional projects. The first involved **covering the**

**drag line** on buoys deployed as bird deterrents behind vessels with various diameters and types of discharge hoses to decrease the chance of the drag line fouling on the circle hooks. Two types of hose were tested, and both were found to decrease the likelihood of fouling because the hose-covered drag line was wider than the hook opening. The second project addressed the difficulty smaller vessels have in achieving recommended performance standards with **streamer lines** distributed for free by USFWS at that time. A lighter-weight line was constructed and tested on a 37 ft LOA sternpicker with overhead rigging. As with all of our projects, we did not evaluate effectiveness in reducing seabird interactions, but in winds less than 15 knots, light seas, and setting speeds of 2.8 to 3.2 knots, this line reached the performance standard.

Another project examined the idea that, when longline gear is **set off the side of the vessel**, the vessel itself acts as a deterrent to birds attacking the bait. The project applicant had observed that flying seabirds avoid approaching too close to a vessel, and proposed that a boat “shadow” existed in which seabirds would avoid attacking bait. Using sink rate measurements and a measurement buoy, it was determined that, in most cases, the average distance of the groundline sinking to a desired depth of 2 m was well beyond the theoretical “shadow” of the boat.

A final project evaluated converting a **net washdown** system commonly used on gillnetters to create a stream of water that would fall over the sinking groundline and deter bird attacks. Such a system was created on a 34 ft LOA bowpicker using a three-inch Pacer pump. Cloudiness of the spray was recorded with still photographs. A slight breeze was observed to blow the spray off the setting gear. In calm conditions, the total length of the area covered by spray fore of the vessel ranged from 1-15 m and the spray fell to the water 30 m fore of the vessel, which was moving in reverse.

### Conclusions and recommendations

In consultation with project skippers and an advisory committee of industry members and researchers, we conclude:

- No seabirds were seen actively pursuing baited hooks during any of our studies;
- heavier streamer lines distributed by Pacific States Marine Fisheries Commission for USFWS are too heavy to be used effectively on many small longline vessels, but lighter-weight streamer lines can achieve the required performance standards;
- construction and use of a davit may allow some smaller vessels to deploy streamer lines away from their gear and thus reduce the chances of fouling;
- reaching desired groundline sink rates by using heavier groundline or by adding additional weight is a serious challenge for a small vessel and international standards for sink rates were not met under test conditions;
- covering buoy drag lines with pliable hose can decrease fouling of buoy lines with halibut gear;
- side-setting conventional gear from a small bowpicker does not appear to significantly reduce the distance behind the stern that gear sinks to a 2 m depth: and

- a 3-in Pacer pump can be adapted to create a 1.5 m wide by 12-15 m long area of spray on the water at a maximum distance of 30 m behind a vessel. However, light winds can blow this spray off the center plane in which the gear would be sinking.

Recommendations as a result of this project are: 1) consideration be given to testing seabird deterrence of lighter-weight streamer lines, 2) if found effective, lighter-weight streamer lines be constructed and distributed for free to small boat operators, 3) research on the use of integrated weight groundline on smaller vessels be continued, particularly on the 40 - 50 ft LOA vessel class, and 4) outreach efforts be undertaken to inform smaller vessel owner/operators about buoy line covering, davit designs and associated costs.

Epilogue: Since the completion of this work, an additional project funded by USFWS was undertaken to create and distribute free lighter weight streamer lines. Details of this work will be published at [www.marineadvisory.org](http://www.marineadvisory.org).

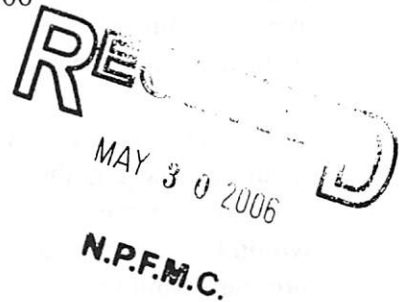


UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668

AGENDA B-7(g)  
JUNE 2006

May 25, 2006



Ms. Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Street, Suite 306  
Anchorage, Alaska 99501-2252

Dear Stephanie,

The Council's June agenda item B-7 offers an opportunity to consider potential improvements to the regulations for seabird avoidance measures for vessels using hook-and-line gear in the groundfish and Pacific halibut fisheries off Alaska. Current requirements for vessels are based on vessel length, gear type used, area fished, and vessel rigging.

In 2004, the National Marine Fisheries Service (NMFS) issued a final rule requiring seabird avoidance measures in the hook-and-line groundfish fisheries of the Bering Sea and Aleutian Islands management area (BSAI) and Gulf of Alaska (GOA) and in the Pacific halibut fishery in U.S. Convention waters off Alaska. These measures were believed necessary at the time to mitigate potential adverse effects of hook-and-line fisheries on endangered albatross and other seabird species. The revised regulations were based in part on Washington Sea Grant Program (WSGP) research conducted onboard vessels longer than 55ft length overall (LOA). Thus, the standards for the required streamer lines were designed for these larger vessels and therefore were not applied to smaller vessels (26-55 ft LOA). At that time, the Council's Scientific and Statistical Committee (SSC) identified a need for additional study on the necessity of, and methods for incidental take reduction on small vessels, particularly those fishing in inside waters.

This study has been completed. Washington and Alaska Sea Grant programs have completed several research projects on the performance of seabird avoidance gear on 26-55 ft vessels using snap-on gear, bow-pickers, and fixed gear; on the rarity of seabird observances in inside waters during longline halibut and sablefish stock assessment surveys; and on the efficiency and efficacy of various types of seabird avoidance gear on small vessels.

Reports on research results have been provided to you by Washington and Alaska Sea Grant programs and staff will be present at the June meeting to present their results. In general, the reports suggest that the use of seabird avoidance measures can be fine-tuned to best match requirements for those areas where the endangered short-tailed albatross (*Phoebastria albatrus*) and other seabird species are most likely to occur. The data indicate that: 1) vessels using hook-and-line gear in Prince William Sound (NMFS Area 649), state waters of Cook Inlet, and Eastern GOA Regulatory Area, Southeast Inside



District (NMFS Area 659) may not need to use seabird avoidance measures due to scarcity of seabirds in these areas, particularly albatross and other Procellariiform seabirds, and 2) smaller vessels (26 to 55 ft LOA) fishing in the EEZ should use seabird avoidance measures that meet a specified standard, given the potential for overlap with seabird occurrence and the improved efficacy of measures that have standards.

The Council may want to consider other refinements to the existing seabird avoidance requirements (e.g. the use of "other devices" and a Seabird Avoidance Plan). It may be that the suggested changes based on the Washington and Alaska Sea Grant programs would be sufficient and some of the existing minor components of the seabird avoidance program would no longer be necessary.

NMFS generally supports these suggested improvements to the existing seabird avoidance regulations, as based on scientific research results. NMFS encourages the Council to seek input on the suggested changes from the U.S. Fish & Wildlife Service and NOAA Enforcement.

Pending Council discussions, NMFS staff will be prepared to analyze possible alternatives for changes to the current seabird avoidance regulations.

Sincerely,



Robert D. Mecum  
Acting Administrator, Alaska Region

MAY-23-2006 TUE 10:53 AM

MAY-23-2006 TUE 10:53 AM FWS FIIC/ESO

FAX NO.

FAX NO. 907 786 3350

AGENDA B-7(h)  
JUNE 2006



IN REPLY REFER TO:

FWS/AFHS/AFWFO

## United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Rd.

Anchorage, Alaska 99503-6199

MAY 15 2006

Robert D. Mecum  
Acting Administrator, Alaska Region  
U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802

Re: Further consideration of Endangered Species Act Section 7 consultation for the Alaska Groundfish Fisheries and its affect on the threatened SWAK population of northern sea otters (*consultation number 2006-117*)

Dear Mr. Mecum:

The U.S. Fish and Wildlife Service (USFWS) has further reviewed the information associated with reinitiation of consultation on Groundfish Fisheries Management Plans and groundfish harvest specifications with respect to the southwest Alaska distinct population segment (DPS) of the northern sea otter (*Enhydra lutris kenyoni*). We provide the comments below in accordance with section 7 (a) (2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended, 16 U.S.C. 1531 *et seq.*). This letter is to inform you of the outcome of further deliberations within Region 7 of the USFWS regarding the circumstances surrounding the reinitiation of this section 7 consultation between USFWS and National Oceanic and Atmospheric Administration/ National Marine Fisheries Service (NOAA/NMFS).

Previously (March 23, 2006), we indicated there were two aspects of your proposed fishery management action in which fishery activities could affect this listed sea otter DPS: 1) the interaction between otters and oil released from vessels participating in fisheries; and 2) the incidental take of otters in commercial fishing gear. We have further considered the responsibilities for overseeing these activities and the likelihood that each activity may result in any take of an otter.

As you know, activities associated with regulation of shipping, transfer, and spilling of petroleum products is outside the regulatory authority of the NOAA/NMFS. Rather, such regulatory authority lies within the U.S. Coast Guard. Furthermore, a large proportion of fuel use, transfer, spill and spill response within Alaska's waters are associated with actions taken by non-fishing vessels. Chronic oil contamination issues can be attributed to all classes of vessels operating within the range of the listed otter DPS; they are not limited to actions taken by commercial fishing vessels that work in this area. Therefore, we have determined that it is more appropriate to address the issue of take of sea otters due to chronic oiling in a separate consultation with the U.S. Coast Guard.



Robert D. Macum

2

Potentially, the incidental take of sea otters could occur as a result of direct entanglement in fishing gear leading to mortality and/or serious injury, and competition for prey species. Sea otters feed primarily on benthic invertebrates in shallow water (<100 m). Most commercial fisheries that take benthic invertebrates occur offshore, well outside the foraging range of sea otters (> 100 m of water depth and > 3 miles from shore). There are few recorded instances of sea otter take in Alaskan Groundfish Fisheries, and entanglement risk is thought to be discountable. The fisheries under review include areas largely outside the range of sea otters; in general, habitat that supports the highest sea otter densities is usually within 40 m depth contour of the shoreline. Current sea otter distribution in the region of these fisheries is concentrated in the near-shore areas (approximately  $\leq 20$  m depth contour and within  $\leq 1$  km of shore) for the majority of this sea otter population. As a result of the restricted distribution of sea otters in this region, we therefore expect a discountable likelihood of a sea otter take in these Groundfish Fisheries.

Thank you for your cooperation in meeting our joint responsibilities under section 7 of the Endangered Species Act. We look forward to continuing work with you in the future on this consultation. If you have any questions, please contact our endangered species Branch Chief, Greg Balogh, at 907-271-2778, or by email at [Greg\\_Balogh@fws.gov](mailto:Greg_Balogh@fws.gov).

Sincerely,

*E. Andrew Stewart*  
 Assistant Regional Director  
 Fisheries and Ecological Services

Post-It <sup>®</sup> Fax Note		7871	Date	# of pages
To	melanie Brown		From	Ann Reynolds
Co./Dupl.	have 'ti		Co.	
Phone #			Phone #	
Fax #			Fax #	



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
*National Marine Fisheries Service*  
P.O. Box 21668  
Juneau, Alaska 99802-1668

May 25, 2006

E. LaVerne Smith, Assistant Regional Director  
U.S. Fish and Wildlife Service  
FWS/AFES/AFWFO  
Fisheries and Ecological Services  
1011 East Tudor Road, MS 361  
Anchorage, Alaska 99503

Re: Further Consideration of Endangered Species Act Section 7 Consultation for the Alaska Fisheries and Its Effect on the Threatened Southwest Alaska Distinct Population Segment of Northern Sea Otters (*consultation number 2006-117*)

Dear Mr. Smith:

Thank you for your letter dated May 15, 2006, regarding the Endangered Species Act (ESA) Section 7 consultation on the effects of the Alaska fisheries on the southwest distinct population segment (DPS) of northern sea otters. The Alaska fisheries included in the consultation were the federal groundfish, crab, and scallop fisheries, and the State of Alaska parallel groundfish fisheries. This consultation was initiated due to the recent listing of the southwest Alaska DPS of northern sea otters as threatened (70 FR 46365, August 9, 2005).

In February 2006, NMFS provided the USFWS a biological assessment that identified two potential adverse effects from the Alaska fisheries: 1) the oiling of sea otters by oil released from vessels participating in fisheries, and 2) the incidental take of otters in commercial fishing gear. NMFS initially determined that these two potential effects were likely to adversely affect northern sea otters and therefore, formal consultation was required. USFWS has further considered the biological assessment and additional information and has determined that these potential effects are discountable. As described in the March 1998 Final ESA Section 7 Consultation Handbook, discountable effects are not likely to adversely affect an ESA-listed species or its designated critical habitat.

Regarding the potential effects of oil released from fishing vessels, we agree with USFWS that NMFS does not have the authority to regulate the release of oil from fishing vessels and that the US Coast Guard would be the appropriate agency to address the potential effects on ESA-listed species of chronic oiling from all marine vessels. Because the impact of oil on sea otters is a matter of chance of the oil being released in nearly the same time as otters may be present, the likelihood of this adverse effect is probably extremely rare, and therefore, discountable.



The incidental take of sea otters in fishing gear also is probably extremely rare and therefore, discountable. The only recorded takes of sea otters is in the Pacific cod pot gear fishery which occurred in a discrete location where fishing for Pacific cod with pot gear no longer occurs. We agree that the potential for overlap between the Alaska fisheries and sea otters is extremely unlikely based on the general locations of sea otters and the locations of fisheries harvests, as discussed in your May 16, 2006 letter. Because the potential effect of incidental take by the Alaska fisheries is discountable, the Alaska fisheries are not likely to adversely affect the southwest DPS of northern sea otters by incidental take and disturbance.

Based on the further consideration of information provided by the USFWS, formal consultation is not required for the potential adverse effects identified in the biological assessment. Based on the not likely to adversely affect determination for the Alaska fisheries, this consultation is now completed. We will continue to monitor any effects the Alaska fisheries may have on sea otters through our North Pacific Groundfish Observer Program and will notify USFWS as soon as possible in the event of any incidental take of northern sea otters in the Alaska fisheries and initiate Section 7 consultation. Thank you for your consideration in this consultation.

Sincerely,



Robert D. Mecum  
Acting Administrator  
Alaska Region

CC: Mckie Campbell, ADF&G  
Herman Savviko, ADF&G

at the "order" date. Therefore, the Department stated that it would recalculate the margin using Colakoglu's reported "order" date as the date of sale.

On November 28, 2005, the Department received comments on the draft results from Gerdau AmeriSteel Corporation, Commercial Metals Company (SMI Steel Group), and Nucor Corporation (collectively "the petitioners"). On November 30, 2006, the Department received rebuttal comments from Colakoglu. On January 13, 2006, the Department issued its final results of redetermination pursuant to remand to the Court. After analyzing the comments submitted by interested parties, we continued to find that the appropriate date of sale for Colakoglu's U.S. sales for the time period in question was the "order" date. Accordingly, Colakoglu's antidumping duty margin percentage for the 2002-2003 period of review is 4.91 percent.

On March 13, 2006, the Court found that the Department complied with the Court's remand order and sustained the Department's remand redetermination. See *Colakoglu Remand*.

**Timken Notice**

In its decision in *Timken Co., v. United States*, 893 F.2d 337, 341 (Fed. Cir. 1990) (*Timken*), the United States Court of Appeals for the Federal Circuit held that, pursuant to section 516A(e) of the Tariff Act of 1930, as amended (the Act), the Department must publish a notice of a court decision that is not "in harmony" with a Department determination, and must suspend liquidation of entries pending a "conclusive" court decision. The Court's decision in *Colakoglu Remand* on March 13, 2006, constitutes a final decision of that court that is not in harmony with the Department's final results in the 2002-2003 administrative review of certain steel concrete reinforcing bars from Turkey. This notice is published in fulfillment of the publication requirements of *Timken*. Accordingly, the Department will continue the suspension of liquidation of the subject merchandise pending the expiration of the period of appeal, or, if appealed, pending a final and conclusive court decision.

This notice is issued and published in accordance with section 516A(c)(1) of the Act.

Dated: March 20, 2006.

David M. Spooner,  
Assistant Secretary for Import Administration.  
[FR Doc. E6-4311 Filed 3-23-06; 8:45 am]  
BILLING CODE 3510-DS-S

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

[I.D. No. 031606B]

**Endangered and Threatened Wildlife and Plants: Announcement of Initiation of a Status Review of the Cook Inlet Beluga Whale under the Endangered Species Act (ESA)**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; request for information.

**SUMMARY:** We, NOAA's National Marine Fisheries Service (NMFS), intend to review the status of the Cook Inlet beluga whale pursuant to the ESA to determine if this group of beluga whales should be listed as an endangered or threatened species. We previously reviewed the status of these whales in 1998, and in 2000 concluded that a listing under the ESA was not warranted at that time. We solicit information to be used in reassessing the status of the Cook Inlet beluga whale.

**DATES:** Comments and information must be received by April 24, 2006.

**ADDRESSES:** Comments and information should be sent to Kaja Brix, Assistant Regional Administrator, Protected Resources Division, NMFS, Alaska Region, Attn: Ellen Walsh. Comments may be submitted by:

(1) Mail: P.O. Box 21668, Juneau, AK 99802-1668;

(2) Hand Delivery to the Federal Building: 709 West 9th Street, Room 420A, Juneau, AK;

(3) FAX: 907-586-7557; or

(4) Email: [CIB-ESA-Status-Review@noaa.gov](mailto:CIB-ESA-Status-Review@noaa.gov). Include in the subject line of the email the following document identifier: CI Belugas Status Review. Email comments, with or without attachments, are limited to five (5) megabytes.

**FOR FURTHER INFORMATION CONTACT:** Brad Smith, NMFS Alaska Region, Anchorage Field Office, (907) 271-5006, Kaja Brix, NMFS, Alaska Region, (907) 586-7235, or Marta Nammack, Office of Protected Resources, (301) 713-1401.

**SUPPLEMENTARY INFORMATION:** ESA section 4 contains provisions and procedures for adding and removing species to the lists of endangered and threatened species. In particular, section 4(a) provides that NMFS shall determine whether any species is threatened or endangered because of any of the following factors: (1) The present or threatened destruction,

modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence.

Pursuant to the ESA, and in response to petitions from external organizations, we reviewed the status of the Cook Inlet beluga whale under the ESA. We determined in 2000 that this group is a distinct population segment (DPS) and, thus, a separate species as defined by the ESA. We also determined that listing the Cook Inlet beluga whale DPS as a threatened or endangered species was not warranted at that time (65 FR 38778; June 22, 2000).

Between 1994, when we initiated abundance surveys for the stock, and 1998, the Cook Inlet beluga whale population declined from an estimated 673 animals to an estimated 347 animals. We stated that the population was likely declining when the 1994 abundance was estimated, and the historical abundance was likely more than 1,000 animals. Subsistence harvest in 1995-1997 was estimated at 87 whales per year, and we concluded this level of harvest accounted for the observed decline of the population. At the time, no other factors could be identified as having a significant effect on the beluga population. Because there was an adequate regulatory mechanism in place to address subsistence harvest, we concluded that an ESA listing was not warranted. This determination was based in part on the expectation that the population would increase after the harvest was reduced to sustainable levels.

We are concerned that recovery may not be occurring as expected, and we recognize that long-term persistence at a small population size increases the risk to this population. Therefore, we plan to re-evaluate the status of the Cook Inlet beluga whale DPS under the ESA.

ESA section 4(a)(3) provides that NMFS shall, concurrent with making a determination that a species is threatened or endangered, designate critical habitat for that species. Critical habitat consists of specific areas in which are found physical and biological features essential to the conservation of the species and which may require special management considerations or protection. Cook Inlet beluga whales occur primarily in upper Cook Inlet, where human development and occupation have been extensive. The status review concerns only whether the Cook Inlet beluga whales should be listed. However, if we determine listing

is necessary, we would also determine whether designation of critical habitat is prudent and determinable.

#### Information Solicited

To ensure the status review is complete and based on the best available scientific and commercial data, we solicit information and comments concerning the Cook Inlet beluga whales and the extent to which natural or human factors may be affecting them. We are particularly interested in information that has been collected since 1998, when the previous status review was initiated, or information that was not available for consideration during that status review. We are seeking available information on: (1) Current known range of the Cook Inlet beluga whale, with a particular focus on current and historical habitat use; (2) demographic movements; (3) trends in foraging habits and seasonal prey abundance; (4) trends in environmental contamination; (5) contaminant burdens in prey species, especially salmonids and eulachon; (6) impacts caused by human recreational activities (e.g., boating); (7) current and planned activities and their possible impacts to the Cook Inlet beluga whale (e.g., habitat modification); (8) efforts to protect the Cook Inlet beluga whale or improve its habitat; (9) non-human factors that may have contributed to its decline (i.e., disease, biotoxins, climatic or oceanographic regime shifts); and (10) industry effects from oil and gas, municipal wastewater, commercial fishing, commercial shipping, etc., and associated noise.

Information is available on the Cook Inlet beluga whale at: <http://www.fakr.noaa.gov/protectedresources/whales/beluga.htm>.

Dated: March 20, 2006.

Jim Lecky,

Director, Office of Protected Resources,  
National Marine Fisheries Service.

[FR Doc. E6-4323 Filed 3-23-06; 8:45 am]

BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[I.D. 032006D]

#### Fisheries Off West Coast States and in the Western Pacific; Pelagic Fisheries; Overfishing Determination on Yellowfin Tuna; Western and Central Pacific Ocean

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of overfishing determination.

**SUMMARY:** This action serves as notice that NMFS, on behalf of the Secretary of Commerce, has determined that overfishing is occurring on the yellowfin tuna (*Thunnus albacares*) stock in the western and central Pacific Ocean (WCPO), and requests that the Western Pacific Fishery Management Council (Council) address this overfishing condition pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. The intent of this action is to notify interested persons that yellowfin tuna is undergoing overfishing in the WCPO.

**SUPPLEMENTARY INFORMATION:** The following reprint of the March 16, 2006, letter from NMFS to the Council notifies the Council of a determination that overfishing is occurring on the yellowfin tuna stock in the WCPO, provides background on how NMFS made the determination, provides the legal basis for the Council to act in response to a determination that overfishing is occurring, and requests the Council to take appropriate action to address the overfishing condition.

Mr. Frank McCoy, Sr.,  
Chairperson,  
Western Pacific Fishery Management Council, 1164 Bishop Street, Suite 1400,  
Honolulu, HI 96813.

Dear Chairman McCoy:

By this letter, NOAA's National Marine Fisheries Service (NMFS), on behalf of the Secretary of Commerce, notifies the Western Pacific Fishery Management Council (Council) that overfishing is occurring on the yellowfin tuna (*Thunnus albacares*) stock in the western and central Pacific Ocean (WCPO). NMFS requests the Council to take appropriate action pursuant to section 304(e) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

According to Amendment 8 Supplement to the Fishery Management Plan for Pelagic Fisheries of the Western Pacific Region (Pelagics FMP), effective July 3, 2003 (68 FR 46112, August 5, 2003), the maximum fishing mortality threshold (MFMT) for stocks managed under the Pelagics FMP would be exceeded if the fishing mortality rate exceeded the rate associated with maximum sustainable yield (MSY). The most recent stock assessment (August 2005) on WCPO yellowfin tuna by the Scientific Committee of the Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, indicates that the then-current rate of fishing mortality ( $F_{\text{current}}$ ) is likely to be in excess of the rate associated with MSY ( $F_{\text{MSY}}$ ). For the base case analysis, the assessment results indicate an  $F_{\text{current}}/F_{\text{MSY}}$  ratio of 1.22 with a

range from 1.0 to 2.33 for the four analyses using alternative sets of assumptions<sup>1</sup>.

The latest estimate of  $F_{\text{current}}/F_{\text{MSY}}$  (1.22) for WCPO yellowfin tuna in 2005 was substantially higher than in the 2004 assessment (0.63)<sup>2</sup>. Scientists at the NMFS Pacific Islands Fisheries Science Center (PIFSC) consider the 2005 assessment model to be an improvement over the 2004 model, and the results to be more reliable. Based on these assessment results and relying on the expertise and advice of the PIFSC Director (October 28, 2005), NMFS has determined that overfishing of the WCPO yellowfin tuna stock is occurring.

The Pacific-wide distribution of yellowfin tuna and the scope of fisheries (international and domestic) exploiting this important species dictate that the U.S. government pursue a strategy to end overfishing through the relevant Regional Fisheries Management Organization, in this instance, the Western and Central Pacific Fisheries Commission (WCPFC). The entire U.S. harvest of yellowfin tuna in the WCPO is only about 4% of the total WCPO catch and the majority of the U.S. harvest is by purse seine vessels fishing within the EEZs of Pacific Island nations (under the authority of the South Pacific Tuna Treaty) or on the high seas. NMFS welcomes the Council's participation as a member of the U.S. Delegation to the WCPFC and looks forward to working with the Council to develop and implement domestic management measures necessary to implement WCPFC decisions. According to Section 304(e) of the MSA, the Council has one year from the date of this notification to prepare and submit an FMP, FMP amendment, or proposed regulations to address the overfishing condition of the yellowfin tuna stock.

Sincerely,

William L. Robinson,  
Regional Administrator.

Dated: March 20, 2006.

Alan D. Risenhoover,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. E6-4322 Filed 3-23-06; 8:45 am]

BILLING CODE 3510-22-P

<sup>1</sup> Hampton, J., P. Kleiber, A. Langley, Y. Takeuchi, and M. Ichinokawa. 2005. Stock assessment of yellowfin tuna in the western and central Pacific Ocean. WCPFC-SA WP-1, 1st Meeting of the Scientific and Committee of the Western and Central Pacific Fisheries Commission, WCPFC-SC1, Noumea, New Caledonia, 8-19 August 2005. July 2005. 79p.

<sup>2</sup> Hampton, J., P. Kleiber, A. Langley, and K. Hiramatsu. 2004. Stock assessment of yellowfin tuna in the western and central Pacific Ocean. WCPFC SCTB17 Working Paper SA-1, 17th Meeting of the Standing Committee on Tuna and Billfish, Majuro, Marshall Islands, 9-18 August 2004. July 2004. 74 p.

of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: April 24, 2006.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E6-6380 Filed 4-27-06; 8:45 am]

BILLING CODE 3510-22-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[I.D. No. 031606B]

#### Endangered and Threatened Wildlife and Plants: Announcement of Initiation of a Status Review of Cook Inlet Beluga Whales under the Endangered Species Act (ESA); Request for Information

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Reopening of the time period for submitting information.

**SUMMARY:** We, NOAA's National Marine Fisheries Service (NMFS), are reopening the time period for submitting information to be used during the Status Review of Cook Inlet Beluga Whales under the ESA. The initial deadline for submitting information was April 24, 2006. We are reopening this time period for an additional 30 days.

**DATES:** Written information must be received by May 30, 2006.

**ADDRESSES:** Information should be sent to Kaja Brix, Assistant Regional Administrator, Protected Resource Division, NMFS, Alaska Region, Attn: Ellen Walsh. Information may be submitted by:

(1) Mail: P.O. Box 21668, Juneau, AK 99802-1668;

(2) Hand Delivery to the Federal Building: 709 West 9th Street, Room 420A, Juneau, AK;

(3) FAX: 907-586-7557; or

(4) Email: [CIB-ESA-Status-Review@noaa.gov](mailto:CIB-ESA-Status-Review@noaa.gov). Include in the subject

line of the email the following document identifier: CI Beluga Status Review. Email comments, with or without attachments, are limited to five (5) megabytes.

**FOR FURTHER INFORMATION CONTACT:** Brad Smith, NMFS Alaska Region, Anchorage Field Office, (907) 271-5006, or Kaja Brix, NMFS, Alaska Region, (907) 586-7235, or Marta Nammack, Office of Protected Resources, (301) 713-1401.

**SUPPLEMENTARY INFORMATION:** NMFS published a notice in the *Federal Register* on March 24, 2006 (71 FR 14836), announcing our intent to initiate a status review on Cook Inlet beluga whales under the ESA. The notice also solicited information to assist in the development of the status review. We have since received several requests to extend the deadline for providing any pertinent information. However, the deadline was April 24, 2006. We, therefore, are reopening the time period for submitting information for an additional 30 days (instead of extending the deadline) to allow interested parties to submit relevant information.

All comments and material received, including names and addresses, will become part of the administrative record and may be released to the public.

Please visit NMFS' Alaska Region web page at <http://www.fakr.noaa.gov> for more information on this status review. General information is available on Cook Inlet belugas at: <http://www.fakr.noaa.gov/protectedresources/whales/beluga.htm>.

Dated: April 24, 2006.

Jim Lecky,

Director, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. E6-6444 Filed 4-27-06; 8:45 am]

BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[I.D. 042405B]

#### Marine Mammals; File No. 800-1664

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; denial of permit.

**SUMMARY:** Notice is hereby given that a request for a major amendment to

Scientific Research Permit Number 800-1664, submitted by Dr. Randall Davis, Texas A&M University, Galveston, Texas, for takes of Steller sea lions (*Eumetopias jubatus*) in Alaska, has been denied.

**ADDRESSES:** The application and related documents are available for review upon written request or by appointment in the following office(s):

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301)713-2289; fax (301)427-2521; and Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802-1668; phone (907)586-7221; fax (907)586-7249.

**FOR FURTHER INFORMATION CONTACT:** Dr. Tammy Adams or Amy Sloan, (301)713-2289.

**SUPPLEMENTARY INFORMATION:** On April 4, 2005, a notice was published in the *Federal Register* (70 FR 17072) that an application had been filed by the above named individual. The requested permit amendment has been denied and the subject permit revoked pursuant to the terms of an agreement with NOAA in settlement of a Notice of Violation and Assessment and Notice of Permit Sanction.

Dated: April 24, 2006.

Stephen L. Leathery,

Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. E6-6445 Filed 4-27-06; 8:45 am]

BILLING CODE 3510-22-S

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[I.D. 041306D]

#### General Advisory Committee to the U.S. Section to the Inter-American Tropical Tuna Commission (IATTC); Public Meeting; Correction

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of a correction of a public meeting notice.

**SUMMARY:** NMFS announces the meeting of the General Advisory Committee to the U.S. Section to the IATTC.

**DATES:** The meeting of the General Advisory Committee will be held on June 1, 2006, from 9 a.m. to 5 p.m. Pacific Time (or until business is concluded).

# TRUSTEES FOR ALASKA

A Nonprofit Public Interest Law Firm Providing Counsel to Protect and Sustain Alaska's Environment

1026 W. 4<sup>th</sup> Ave., Suite 201 Anchorage, AK 99501 (907) 276-4244 (907) 276-7110 Fax Email: [ecolaw@trustees.org](mailto:ecolaw@trustees.org)  
Web address: [www.trustees.org](http://www.trustees.org)

April 20, 2006

Robert D. Mecum  
Acting Administrator, Alaska Region  
U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668

Brad Smith  
Barbara A. Mahoney  
Anchorage Field Office  
National Marine Fisheries Service  
222 West 7th Ave., Box 43  
Anchorage, Alaska 99513

Re: Cook Inlet beluga whale (*Delphinapterus leucas*)


Dear Messrs. Mecum and Smith, and Ms. Mahoney:

Enclosed for your information is a copy of a petition seeking the listing of the Cook Inlet beluga whale (*Delphinapterus leucas*) as an endangered species under the federal Endangered Species Act. The petition was recently submitted for filing with the Secretary of Commerce.

Thank you for your attention to this important topic. If you have any questions about the petition, please feel free to contact me.

Sincerely,

TRUSTEES FOR ALASKA

  
Michael J. Frank  
Staff Attorney

**APRIL 20, 2006**

**TO CARLOS GUTIERREZ  
U.S. SECRETARY OF COMMERCE  
15 AND CONSTITUTION AVENUES N.W.  
WASHINGTON, D.C. 20230**

**PETITION TO LIST THE COOK INLET POPULATION OF BELUGA WHALES  
(*DELPHINAPTERUS LEUCAS*) AS ENDANGERED UNDER THE FEDERAL  
ENDANGERED SPECIES ACT**



## TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
INTRODUCTION AND EXECUTIVE SUMMARY.....	4
PETITIONERS .....	6
Counsel for the petitioners: .....	10
THE PETITION.....	11
I. STATUS OF THE COOK INLET BELUGA .....	11
A. NATURAL HISTORY .....	11
1. Description.....	11
2. Feeding.....	12
3. Reproductive parameters.....	14
a. Calving areas .....	14
b. Sex ratio .....	15
c. Age at sexual maturity .....	15
d. Pregnancy rates .....	16
e. Life-span and reproductive life .....	16
f. Reproductive rates .....	16
g. Lactation .....	17
h. Gestation .....	17
4. Natural mortality.....	18
B. DISTRIBUTION .....	19
1. Current Distribution.....	19
2. Factors Affecting Distribution.....	20
3. Changes in Distribution.....	21
C. POPULATION ABUNDANCE ESTIMATE .....	22
II. CRITERIA FOR ENDANGERED SPECIES ACT LISTING. ....	24
A. The Cook Inlet Population of Beluga Whales is a "Species" Under the ESA. ....	24
1. Distinct population segment.....	25
a. Discreteness .....	25
b. Significance .....	26
i. Cook Inlet beluga whales are a discrete population in a unique ecological setting. .	27
ii. Loss of Cook Inlet beluga whales would result in a significant gap in the range of beluga whales.....	27
iii. Cook Inlet beluga whales differ markedly from other populations of beluga whales. ....	27
c. Cook Inlet beluga whales comprise a "stock" under the MMPA. ....	28
B. THE COOK INLET POPULATION OF BELUGA WHALES IS ENDANGERED UNDER THE ESA. ....	28
1. Inadequacy of existing regulatory mechanisms - 16 U.S.C. § 1533(a)(1)(D).....	29
a. MMPA .....	31

i.	Prohibition on commercial harvest and wasteful take of whales .....	31
ii.	Co-management .....	31
iii.	Depleted status .....	32
b.	International Whaling Commission .....	33
c.	Alaska-based formal and informal regulation ..	33
i.	Alaska Beluga Whale Committee .....	33
ii.	CIMMC .....	34
iii.	Alaska Regional Scientific Review Group ....	34
iv.	State of Alaska .....	35
v.	The Municipality of Anchorage and the Matanuska-Susitna and Kenai Peninsula Boroughs .....	35
2.	Present or threatened destruction, modification or curtailment of habitat or range - 16 U.S.C. § 1533(a) (1) (A) .....	36
a.	Shrinkage of historic range .....	36
b.	Other current and future threats to habitat ..	37
i.	Oil and gas activities .....	37
ii.	Water contamination .....	39
iii.	Vessel traffic .....	41
iv.	Fisheries .....	45
v.	Upland habitat loss .....	47
vi.	Food Stress .....	48
3.	Disease or predation - 16 U.S.C. § 1533(a) (1) (C) .....	48
a.	Disease .....	48
b.	Natural Predation .....	48
c.	Human Predation .....	49
4.	Other natural or manmade factors affecting its continued existence - 16 U.S.C. § 1533(a) (1) (E) ..	49
a.	Human population growth and associated development in, and uses, of Cook Inlet .....	50
b.	Climate Change .....	50
c.	Stochastic (Random) Events .....	51
d.	Risk of small population size. ....	52
III.	DESIGNATION OF CRITICAL HABITAT - 16 U.S.C. § 1533(a) (3) (A) .....	57
	CONCLUSION.....	58
	BIBLIOGRAPHY OF LITERATURE CITED .....	59
I.	MEETING MINUTES, LETTERS, PUBLICATIONS, STUDIES, NEWSPAPER ARTICLES, AND OTHER MATERIALS. ....	59
II.	FEDERAL REGISTER NOTICES. ....	68
III.	STATUTES AND REGULATIONS .....	68
IV.	COURT CASES .....	69

## INTRODUCTION AND EXECUTIVE SUMMARY

The Cook Inlet population of beluga whales was first listed as a possible candidate for listing under the federal Endangered Species Act nearly twenty years ago (53 Fed. Reg. 33516). In response to a listing petition filed with the U.S. Department of Commerce under the Act, in 2000 NOAA Fisheries National Marine Fisheries Service ("NMFS") declined to list the whale under the Act but instead listed the whale as "depleted" under the less protective federal Marine Mammal Protection Act (65 Fed. Reg. 34590). Since 2000, however, the Cook Inlet beluga whale population has shown no signs of a recovery.

The U.S. Marine Mammal Commission "believes that the population is already at risk genetically," that it is "by all conservation standards, already at a dangerously low level," and that it "continues to believe that listing this population under the Endangered Species Act is warranted" (Marine Mammal Commission 2004, at 4, 7). In June 2005 written comments, the Commission recommended to NMFS that it should "promptly" begin a status review under the Endangered Species Act and that it should "proceed directly to publication of a proposed listing rule" (Marine Mammal Commission 2005, at 4 (emphasis added)). The Commission went on to say that "As for the merits of a proposed listing, the Commission believes that the case is clear.... This seems to constitute a compelling case for listing [under the Endangered Species Act]" (Marine Mammal Commission 2005, at 4, 5 (emphasis added)).

The U.S. Marine Mammal Commission does not stand alone among the experts in making this recommendation. The Cook Inlet beluga whale population qualifies for listing as "Endangered" and as "Critically Endangered" under the Red List Criteria of the prestigious International Union for the Conservation of Nature and Natural Resources (Lowry 2006). Listing has been proposed under the "Critically Endangered: C2a(ii)" criterion based on the "fact that the population is continuing to decline even after the only identified cause of the decline (excessive hunting) has been controlled" (Lowry 2006, at 7).

The Cook Inlet beluga whale population is isolated from other beluga whale stocks in Alaska. The population, apparently in decline for many years, experienced a dramatic and precipitous decline in the 1990s, which in 2000 NMFS attributed to over hunting by Alaska Natives. This precipitous decline prompted Alaska Native whale hunter Joel Blatchford, the Alaska Center for the Environment, Alaska Community Action on Toxics, Alaska Wildlife Alliance, Center for Biological Diversity, Center for Marine Conservation, National Audubon Society, and Trustees for Alaska to file a petition to list the Cook Inlet beluga whale population as endangered under the federal Endangered Species Act.

In response to the petition, in May 2000 NMFS listed the whale as depleted under the federal Marine Mammal Protection Act (65 Fed. Reg. 34590). NMFS declined,

however, to list the population as either threatened or endangered under the Endangered Species Act, finding instead that listing under the latter Act was not warranted (65 Fed. Reg. 38778). In declining to list the species under the Endangered Species Act, NMFS predicted that restrictions on Alaska Native hunting would lead to the recovery of the Cook Inlet beluga whale population (NMFS 2003). These restrictions on Native hunting were later imposed by regulation (65 Fed. Reg. 59164).

Contrary to NMFS's expectation that regulatory restrictions on Native hunting would lead to an increase in the size of the Cook Inlet beluga whale population, recovery of the population has not occurred. Indeed, NMFS recently acknowledged that the two critical assumptions that it made in 2000 about subsistence hunting were off base (NMFS 2005a). These assumptions were that over hunting was responsible for the decline in the population and that controlling hunting would prevent any further decline. The assumptions, the Service now admits, are "challenged" by the fact that "Abundance estimates since harvest management began in 1999 have not shown significant growth" (NMFS 2005a, at 87). NMFS further recognizes that "At the time of this writing, there is evidence that one or more of these factors [that require listing under the Endangered Species Act] would apply to this stock" (NMFS 2005a, at 86). Recently, in his recommended decision concerning NMFS's regulation of subsistence harvest, the Administrative Law Judge concluded that "after six years of little or no permitted harvests, there has been no detectable recovery of the stock, and it appears that unidentified factors are causing mortality or acting to depress the population growth." (U.S. Department of Commerce 2006, at 2). See also id. at 11, 16 (concluding that there is a "74 percent chance that the growth rate [of the population] is below 2 percent," there is a "46 percent chance that the growth rate is negative," and the "chances the population will recover or decline below 200 are equally likely").

In 2004 NMFS estimated the Cook Inlet beluga whale population size as "fewer than 370" (NMFS 2005a, at Abstract, 4). In January 2006, NMFS indicated the "latest [2005] abundance estimate is 278 individual beluga whales" and gave a "population estimate [that] holds a 95 percent confidence interval that the true population of whales lies between 194 and 398 whales," an estimate that "falls near the lower limit of expected variability for a stable population" (NMFS 2006). Because the difficulty posed by surveying diving whales in turbid waters, NMFS's population estimate numbers are extrapolations, derived from sightings of far fewer whales (NMFS 2005a, at 4). In any event, NMFS now acknowledges that "the recovery of the CI beluga whale will require decades. During the early phase of recovery this stock will exist at a precarious level of abundance from which further declines may not be recoverable" (NMFS 2005a, at 87 (emphasis added)).

Thus, just as in 1999, today the Cook Inlet beluga whale remains stranded on a dangerous precipice. Its small population size alone puts the Cook Inlet beluga whale at great risk of extinction. Even were the population size somewhat larger, however, the Cook Inlet beluga whale would remain extremely vulnerable to extinction from many other possible stressors. These include, but are not limited to, natural sources of mortality such as strandings, disease, and predation, natural reductions in available

habitat, illegal hunting, anthropogenic noise, various kinds of industrial activities, the construction of human infrastructure (such as docks, roads and the like) in sensitive habitats, toxic contamination from industrial and urban sources, disturbances from vessel traffic, competition for prey from fishing, reduction in the availability of prey species, and other as yet unidentified stressors. The population's special vulnerability to adverse impacts from single events, such as a large stranding or a catastrophic oil spill, and to contagious disease is considerable because "Beluga whales are extremely social animals that typically migrate, hunt, and interact together," and their habit of aggregating in large groups while feeding and traveling increases their vulnerability to damaging single events and contagion (Marine Mammal Commission 2005, at 2).

Congress has granted regulatory jurisdiction under federal law over nearly all marine mammals to the Secretary of Commerce. This petition therefore asks the Secretary to list the Cook Inlet beluga whale population as endangered under the Endangered Species Act. The Act requires that a species or subspecies be listed when it faces the threat of extinction from over-utilization, when existing regulatory mechanism are inadequate to protect the species, when its habitat is threatened, when it is vulnerable to disease or predation, or when there are other natural manmade factors affecting its continued existence. The existence of any one of these factors justifies listing under the Act. Here, more than one factor exists and justifies listing the Cook Inlet beluga whale as endangered under the Act.

In addition to listing under the Endangered Species Act, this petition also asks that the Secretary of Commerce designate critical habitat for the Cook Inlet beluga whale population. Under the Act, critical habitat includes those areas that are essential for the health, continued survival, and recovery of the population (16 U.S.C. § 1533(a)(3)(A)).

### **PETITIONERS**

The petitioners are a number of conservation organizations and one individual. Each petitioner seeks the protection of the Cook Inlet beluga whale population from extinction.

Cook Inlet Keeper is a private nonprofit organization dedicated to protecting the vast Cook Inlet watershed and the life it sustains. Since its inception in 1995, Keeper has become a leading advocate for watershed-based protections in the rich but threatened streams, lakes and estuaries of the Cook Inlet watershed. Its contact information is:

Bob Shavelson  
Executive Director  
Cook Inlet Keeper  
P.O. Box 3269  
3734 Ben Walters Lane  
Homer, Alaska 99603  
Ph: (907) 235-4068  
Email: bob@inletkeeper.org

Alaska Center for the Environment is an Alaska non-profit environmental advocacy and education corporation that is dedicated to the conservation of Alaska's ecosystems. ACE has approximately 7,000 members. Its contact information is:

Randy Virgin  
Executive Director  
Alaska Center for the Environment  
807 G Street, Suite 100  
Anchorage, Alaska 99501  
Ph: (907) 274-3621  
Email: randy@alaskacenter.org

The National Audubon Society is dedicated to the conservation of Alaska's natural ecosystems focusing on birds, other wildlife, and their habitats for the benefit and enjoyment of current and future generations. It has 2,300 Alaska members and supporters. Audubon members have a strong interest in the conservation of the Cook Inlet beluga whale population and its habitats. Its contact information is:

Stan Senner  
Executive Director  
National Audubon Society, Alaska State Office  
715 L Street, Suite 200  
Anchorage, Alaska 99501  
Ph: (907) 276-7034  
Email: jschoen@alaska.net

Founded in 1982, the North Gulf Oceanic Society is a federally recognized Alaskan non-profit research and education group whose members are active researchers and educators. The Society's focus is on marine bird and marine mammal research, but in recent years it has focused primarily on cetaceans. The Society maintains long-term life history and population studies on both humpback whales and killer whales from Southeast Alaska to the Aleutian Islands, and presents the results and analysis of its work at scientific conferences, in schools, and to various user groups. The Society also trains tour boat operators in proper whale watching techniques, and takes out groups of students to give the students hands on experience in field research. Its contact information is:

Craig O. Matkin  
Executive Director  
North Gulf Oceanic Society  
3430 Main St. B1  
Homer, Alaska 99603  
Ph: (907) 235-6590  
Email: comatkin@xyz.net

The Alaska Oceans Program is a marine fundraising program of the Alaska Conservation Foundation working in collaboration with multi-stakeholder groups throughout Alaska to protect and restore the amazing diversity of the North Pacific's ocean ecology, including fish, wildlife, and seabirds and their habitat, while providing for sustainable human uses. It works to achieve this through facilitating the Alaska Oceans Network, the Shipping Safety Partnership and the annual Alaska Oceans Festivals. Its contact information is:

Shelley Johnson  
Alaska Oceans Program  
308 G Street, Suite 219  
Anchorage, Alaska 99501  
Ph: (907) 929-9375  
Email: Shelley@alaskaoceans.net

Defenders of Wildlife is a nationally recognized non-profit wildlife conservation organization with over 800,000 members and supporters nationwide, including 2366 members and supporters in Alaska. Defenders is dedicated to the protection of all native wild animals in their natural communities, and focuses its programs on the accelerating rate of extinction of species and the associated loss of biological diversity, and habitat alteration and destruction. It advocates new approaches to wildlife conservation that will help keep species from becoming endangered. Defenders contact information for their marine program office is:

Jim Curland  
Marine Program Associate  
Defenders of Wildlife  
P.O. Box 959  
Moss Landing, CA. 95039  
Ph: (831) 726-9010  
Email: jcurland@defenders.org

The Kachemak Bay Conservation Society is an Alaska conservation organization with approximately 130 members. Its mission is to protect the environment of the Kachemak Bay region in Cook Inlet and to encourage sustainable use and stewardship of local natural resources through advocacy, education/information, and collaboration. Its contact information is:

Dylan Weiser  
President  
Kachemak Bay Conservation Society  
3734 Ben Walters Lane, Suite 202  
Homer, AK 99603  
Email: KBCS@xyz.net

Alaska Community Action on Toxics is a statewide non-profit public interest environmental health research and advocacy organization dedicated to protecting environmental health and achieving environmental justice. Its mission is to assure justice by advocating for environmental and community health. It works to stop the production, proliferation, and release of toxic chemicals that may harm human health or the environment. It has approximately 600 members, including individuals, Alaska Native tribes, and other organizations. Its contact information is:

Pamela K. Miller  
Executive Director  
Alaska Community Action on Toxics  
505 West Northern Lights Boulevard Suite 205  
Anchorage, Alaska 99503  
Ph: (907) 222-7714  
Fax: (907) 222-7715  
Email: [pkmiller@akaction.net](mailto:pkmiller@akaction.net)

The Center for Biological Diversity is a non-profit corporation with offices in California, Oregon, Arizona and New Mexico. It is actively involved in species and habitat protection issues throughout the United States, including Alaska, as well as internationally. Its members and staff have researched, studied, observed, and sought protection under the Endangered Species Act for many rare and threatened species, including the Cook Inlet beluga whale. Its contact information is:

Brent Plater  
Staff Attorney  
Center for Biological Diversity  
San Francisco Bay Area Office  
1095 Market St., Suite 511  
San Francisco, CA 94103  
Ph: (415) 436-9682  
Fax: (415) 436-9683  
Email: [bplater@biologicaldiversity.org](mailto:bplater@biologicaldiversity.org)

and

Brendan Cummings  
Ocean Program Director  
Center for Biological Diversity  
PO Box 549  
Joshua Tree, CA 92252  
Ph: (760) 366-2232 ext. 304  
Fax: (760) 366-2669  
Email: [bcummings@biologicaldiversity.org](mailto:bcummings@biologicaldiversity.org)



Friends of Potter Marsh and the Anchorage Coastal Wildlife Refuge is a non-profit corporation organized under the laws of the State of Alaska. Its mission is to ensure the integrity of the natural resources of Potter Marsh and the Anchorage Coastal Wildlife Refuge and to promote public awareness and conservation action related to the natural resources and values of the marsh and refuge. It has approximately 300 members. Its contact information is:

L. James (Smiley) Shields, PhD  
President  
Friends of Potter Marsh and the Anchorage Coastal Wildlife Refuge  
2140 Shore Drive  
Anchorage, Alaska 99515  
Tel: (907) 344-6220  
Fax: (907) 344-6220  
Email: sshields@alaska.net

The Natural Resources Defense Council ("NRDC") is a non-profit environmental membership organization with more than 650,000 members and more than 600,000 "online activists" throughout the United States. About 1,858 NRDC members and 1,793 NRDC on-line activists live in Alaska. NRDC has long been active in Alaska environmental matters. With its nationwide membership and a staff of lawyers, scientists, and other environmental specialists, it plays a leading role on a diverse range of land and wildlife management and resource development issues throughout the United States. Its contact information is:

Andrew E. Wetzler  
Senior Attorney  
NRDC  
544 White Oak Place  
Worthington, OH 43085  
Tel: (614) 840-0891  
Email: awetzler@nrdc.org

Dr. Sylvia Brunner is a marine mammal biologist. She has a PhD in zoology from the University of Sydney and is an active participant in the Alaska Marine Mammal Stranding Network. Dr. Brunner joins this petition as an individual. Her contact information is:

Sylvia Brunner, PhD  
PO Box 84983  
Fairbanks, Alaska 99708  
Tel: (907) 479-8798  
Email: sylvia.brunner@gmail.com

**Counsel for the petitioners:**

Trustees for Alaska  
1026 W. 4th Ave., Suite 200  
Anchorage, Alaska 99501  
Attention: Michael J. Frank, Staff Attorney  
Rebecca Bernard, Legal Director  
Ph: (907) 276-4244  
Email: mike@trustees.org  
becca@trustees.org

## THE PETITION

The Cook Inlet beluga whale population has been in decline since at least the 1970s (Rugh *et al.* 2000), but suffered a dramatic decline in the mid to late 1990s (Hobbs *et al.* 2000). Today there are no reliable signs either that the population is increasing or that it will recover to its historic population level any time in the near future, if ever. It faces many threats that may reduce its current population further and pushing it over the precipice into extinction.

Therefore, pursuant to 5 U.S.C. § 553(e) and 50 C.F.R. part 424.14, petitioners petition the Secretary of Commerce to list the Cook Inlet beluga whale (*Delphinapterus leucas*) as endangered under the ESA, 16 U.S.C. §§ 1531 - 1544.

Pursuant to 50 C.F.R. part 414.12 and 5 U.S.C. § 553, petitioners also request that critical habitat for the Cook Inlet beluga whale be designated concurrently with its listing,

This petition summarizes the natural history of the beluga whale, the information available on the Cook Inlet population of beluga whales, and the current and future threats to the viability of the Cook Inlet beluga whale population and to its habitat.

### I. STATUS OF THE COOK INLET BELUGA WHALE POPULATION

#### A. NATURAL HISTORY

Much of the natural history information about beluga whales in this section I is derived from observations of beluga whales outside Cook Inlet and outside Alaska. The lack of local data and the uncertainty caused by it underscores the potential threats that the Cook Inlet beluga whale population. That beluga whales outside of Cook Inlet and Alaska have withstood environmental stresses may not be predictive of the ability of the Cook Inlet population to do so. This uncertainty should be of significant concern to NMFS and is another reason why any doubts should be resolved in favor of listing the population under the ESA.

##### 1. Description

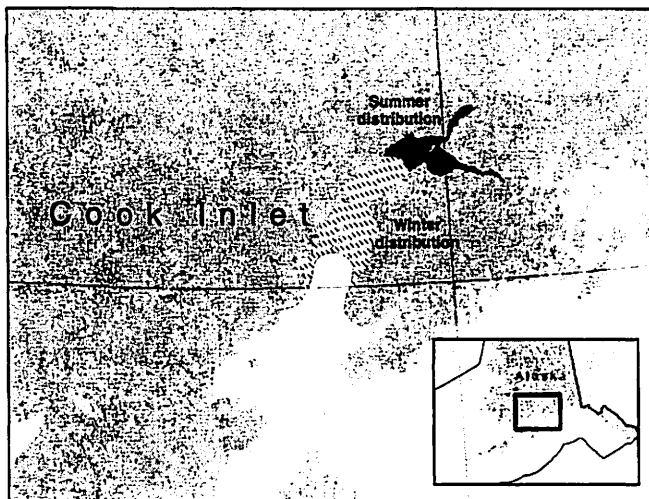
As whales go, beluga whales are rather small. The maximum recorded weight of an adult male is about 3000 pounds (Beland 1996). The heaviest female weighs about

Revised 1/12/05

**BELUGA WHALE (*Delphinapterus leucas*): Cook Inlet Stock**

**STOCK DEFINITION AND GEOGRAPHIC RANGE**

Beluga whales are distributed throughout seasonally ice-covered arctic and subarctic waters of the Northern Hemisphere (Gurevich 1980), and are closely associated with open leads and polynyas in ice-covered regions (Hazard 1988). Depending on season and region, beluga whales may occur in both offshore and coastal waters, with concentrations in Cook Inlet, Bristol Bay, Norton Sound, Kasegaluk Lagoon, and the Mackenzie Delta (Hazard 1988). During spring and summer months, beluga whales in Cook Inlet are typically concentrated near river mouths in northern Cook Inlet (Rugh et al. 2000). Although the exact winter distribution of this stock is unknown, there is evidence that some--if not all--of this population may inhabit Cook Inlet year-round (Fig. 19; Hansen and Hubbard 1999, Rugh et al. 2000). Satellite tags have been attached to 17 belugas in late summer in order to determine their distribution through the fall and winter. Ten tags have lasted through the fall and of those, three have lasted through the winter. The three tags that transmitted through the winter stopped working in April and late May (Hobbs et al. in review). No tagged beluga moved south of Chinitna Bay (Hobbs et al. in review). A review of all cetacean surveys conducted in the Gulf of Alaska from 1936 to 2000 discovered only 31 sightings of belugas among 23,000 sightings of other cetaceans, indicating that very few belugas occur in the Gulf of Alaska outside of Cook Inlet (Laidre et al. 2000). A small number of beluga whales (under 20 animals) also occur in Yakutat Bay; these are considered part of the Cook Inlet stock (65 FR 34590; 31 May 2000).



**Figure 19.** Approximate distribution of beluga whales in Cook Inlet. The dark shading displays the summer distribution. Winter distribution is depicted with dashed shading.

The following information was considered in classifying beluga whale stock structure based on the Dizon et al. (1992) phylogeographic approach: 1) Distributional data: geographic distribution discontinuous in summer (Frost and Lowry 1990); distribution unknown outside of summer; 2) Population response data: possible extirpation of local populations; distinct population trends between regions occupied in summer; 3) Phenotypic data: unknown; and 4) Genotypic data: mitochondrial DNA analyses indicate distinct differences among summering areas (O'Corry-Crowe et al. 2002). Based on this information, 5 stocks of beluga whales are recognized within U. S. waters: 1) Cook Inlet, 2) Bristol Bay, 3) eastern Bering Sea, 4) eastern Chukchi Sea, and 5) Beaufort Sea.

**POPULATION SIZE**

Aerial surveys for beluga whales in Cook Inlet have been conducted by the National Marine Fisheries Service each year since 1993. Starting in 1994, the survey protocol included paired, independent observers so that the number of whale groups missed can be estimated. When groups were seen, a series of aerial passes were made to allow each observer to make independent counts at the same time that a video camera was photographing the whale group (Rugh et al. 2000).

The annual abundances of beluga whales in Cook Inlet are estimated from counts by aerial observers and aerial video group counts. Each group size estimate is corrected for subsurface animals (availability correction) and animals at the surface that were missed (sightability correction) based on an analysis of the video tapes (Hobbs et al. 2000b). When video counts are not available, observer's counts are corrected for availability and sightability using a regression of counts and an interaction term of counts with encounter rate against the video group size estimates (Hobbs et al. 2000b). The most recent abundance estimate of beluga whales in Cook Inlet, resulting from the June

2003 aerial survey is 357 (CV = 0.107) animals (NMFS unpubl. data). The 2003 estimate of abundance is similar to the estimates for 1999 and 2000; the difference from estimates in 2001 and 2002 is not significant.

#### Minimum Population Estimate

The minimum population size ( $N_{MIN}$ ) for this stock is calculated according to Equation 1 from the PBR Guidelines (Wade and Angliss 1997):  $N_{MIN} = N/\exp(0.842 \times [\ln(1 + [CV(N)]^2)]^{1/2})$ . Using the population estimate (N) of 357 and its associated CV(N) of 0.107,  $N_{MIN}$  for the Cook Inlet stock of beluga whales is 326.

#### Current Population Trend

The corrected abundance estimates for the period 1994-03 are shown in Figure 20. A statistically significant trend in abundance was detected between 1994 and 1998 (Hobbs et al. 2000a), although the power was low due to the short time series. However, the 1998 abundance estimate (349) was approximately 50% lower than the 1994 abundance estimate (653). The Cook Inlet beluga population has shown no significant trend since 1998 (NMFS unpublished data).

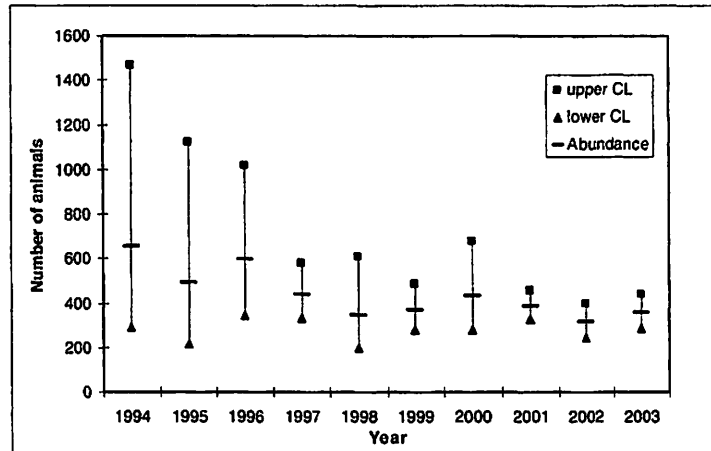


Figure 20. Abundance of beluga whales in Cook Inlet, Alaska 1994-2003. Error bars depict 95% confidence intervals.

#### CURRENT AND MAXIMUM NET PRODUCTIVITY RATES

A reliable estimate of the maximum net productivity rate is currently not available for the Cook Inlet stock of beluga whales. Hence, until additional data become available, it is recommended that the cetacean maximum theoretical net productivity rate ( $R_{MAX}$ ) of 4% be employed for this stock (Wade and Angliss 1997).

#### POTENTIAL BIOLOGICAL REMOVAL

Under the 1994 reauthorized Marine Mammal Protection Act (MMPA), the potential biological removal (PBR) is defined as the product of the minimum population estimate, one-half the maximum theoretical net productivity rate, and a recovery factor:  $PBR = N_{MIN} \times 0.5R_{MAX} \times F_R$ . The  $F_R$  and PBR for the Cook Inlet stock of beluga whale were both undetermined in Small and DeMaster (1995), 1.0 and 15 in Hill et al. (1997), and 1.0 and 14 in Hill and DeMaster (1998). However, based on the recent information on stock size, trends in abundance, and level of the subsistence harvest, the Alaska Scientific Review Group (SRG) recommended that NMFS reduce the  $F_R$  to the lowest value possible (0.1; Ferrero 1999). Further, the Alaska SRG noted the resulting PBR would be 0.61 (assuming an  $N_{MIN}$  of 303 as the 1999 population size and an  $R_{MAX}$  of 0.04) and recommended that the agency use this value in managing interactions between Cook Inlet belugas and commercial fisheries in Cook Inlet.

NMFS has chosen not to accept the recommendation of the Alaska SRG at this time. Rather, NMFS has selected an  $F_R$  of 0.3 based on the following: this stock has been listed as "depleted" under the MMPA (65 Federal Register 34590, 31 May 2000); and NMFS has not listed this stock as endangered under the Endangered Species Act (65 Federal Register 38778, 22 June 2000); a listing of endangered is typically associated with a  $F_R$  of 0.1, while a listing of depleted or threatened is associated with a  $F_R$  of 0.5. Furthermore, the major mortality factor for this stock, subsistence harvest, has been reduced through legislation and cooperative efforts by Alaskan Natives. Thus, the  $PBR = 2.0$  animals ( $326 \times 0.02 \times 0.3$ ) for the Cook Inlet stock of beluga whale.

#### ANNUAL HUMAN-CAUSED MORTALITY AND SERIOUS INJURY

##### Fisheries Information

In 1999 and 2000, observers were placed on Cook Inlet salmon set and drift gillnet vessels because of the potential for these fisheries to incur incidental mortalities of beluga whales. No mortalities were observed in either year (Manly in review). An additional source of information on the number of beluga whales killed or injured

incidental to commercial fishery operations is the self-reported fisheries information required of vessel operators by the MMPA. During the period between 1990-2000, fisher self-reports indicated no mortalities of beluga whales from interactions with commercial fishing operations (Table 26). Logbook data are available for part of 1989-94, after which incidental mortality reporting requirements were modified. Under the new system, logbooks are no longer required; instead, fishers provide self-reports. Data for the 1994-95 phase-in period are fragmentary. After 1995, the level of reporting dropped dramatically, such that the records are considered incomplete and estimates of mortality based on them represent minimums (see Appendix 7 for details).

**Table 26.** Summary of incidental mortality of beluga whales (Cook Inlet stock) due to commercial fisheries for 1999-2003.

Fishery name	Years	Data type	Range of observer coverage	Reported mortality (in given yrs.)	Estimated mortality (in given yrs.)	Mean annual mortality
Cook Inlet salmon drift gillnet	1999	obs	1.8%	0	0	0
	2000	data	3.7%	0	0	
Cook Inlet salmon set gillnet	1999	obs	7.3%	0	0	0
	2000	data	8.3%	0	0	
Observer program total	93-03					0
Minimum total annual mortality						0

Based on a lack of reported mortalities, the estimated minimum mortality rate incidental to commercial fisheries is zero belugas per year from this stock.

**Subsistence/Native Harvest Information**

Subsistence harvest of beluga whales in Cook Inlet has been important to local villages. Between 1993 and 1999, the annual subsistence take ranged from 30 animals to over 100 (Mahoney and Shelden 2000). The most thorough subsistence harvest surveys were completed by the Cook Inlet Marine Mammal Council during 1995-97; while some of the hunters believe the 1996 estimate was positively biased, the 1995-97 CIMMC take estimates are considered reliable. The average annual subsistence harvest between 1995 and 1997 was 87 whales.

Because of the decline in the Cook Inlet beluga whale stock in 1999 Congress imposed a moratorium on beluga harvest in Cook Inlet until NMFS developed a cooperative plan for harvest management with the local Alaska Native organizations. Thus, the best estimate of subsistence take in 1999 and 2000 is zero. Harvest through 2004 was conducted under an interim harvest management plan developed by the Alaska Native organizations and NMFS (69 FR 17973, 6 April 2004); under that agreement, one whale was taken in 2001, 2002, and 2003. A long term harvest management plan is under development (NMFS 2004). A summary of Cook Inlet beluga whale subsistence harvest data for 1999-2003 is provided in Table 27.

**Table 27.** Summary of the Alaska Native subsistence harvest from the Cook Inlet stock of beluga whales, 1999-2003. Harvest estimates prior to 1999 are not included here because subsistence harvest was drastically limited as of 1999.

Year	Reported total number taken	Estimated range of total take	Reported number harvested	Estimated number struck and lost
1999	0	0	0	0
2000	0	0	0	0
2001	1	-	1	0
2002	1	-	1	0
2003	1	-	1	0
Mean annual take, 2001-03	1			

**OTHER MORTALITY**

Mortalities related to stranding events have been reported in Cook Inlet (Table 28). Since detailed recordkeeping was initiated in 1994, there have been mass strandings of beluga almost every year. These mass strandings resulted in mortalities of 4 animals in 1996, 5 animals in 1999, and 6 animals in 2003 (NMFS unpublished data). Many of the strandings occurred in Turnagin Arm. Because Turnagin Arm is a shallow, dangerous waterway, it is not

frequented by motorized vessels, and thus, it is highly unlikely that the strandings resulted from human interactions. Another source of mortality in Cook Inlet is killer whale predation. Killer whale sightings were rare in the upper Inlet prior to the 1990s, but have increased to include 18 confirmed sightings from 1985 to 2002 (Shelden et al. 2003). Recently, three predation events occurred in the upper Inlet; one in September 1999 in which the outcome was unknown and one in September 2000 that involved two lactating females which subsequently died (Shelden et al. 2003), and one in 2003 (NMFS unpublished data).

**STATUS OF STOCK**

An analysis of available data on the population size and dynamics of the Cook Inlet beluga whale stock led NMFS to conclude that this stock is currently below its Optimum Sustainable Population level. Thus, this stock was designated as “depleted” under the MMPA (65 FR 34590; 31 May 2000). NMFS also made a determination that this stock should not be listed under the ESA at the time (65 FR 38778; 22 June 2000) primarily because the subsistence harvest, which appears to have been responsible for the majority of the decline in this stock, was prohibited in 1999 through an act of Congress. Once the subsistence harvest ceased, the decline in the stock

**Table 28.** Cook Inlet beluga strandings investigated by NOAA Fisheries.

Year	Total Dead (includes subsistence)	Natural or Unknown Cause	Number of Belugas Stranded (mortality known)
1994	10	7	186 (0)
1995	12	1	
1996	19	11	63(0), 60(4), 25(0), 10 (0)
1997	6	3	
1998	21	7	30(0), 5(0)
1999	13	13	60(5), 13(0)
2000	13	13 (2 killer whale)	8(0), 15-20(0), 1-2(0)
2001	11	10	
2002	14	13	
2003	21	20 (1 killer whale)	46 (6), 26 (0), 32 (0)
Total	140	98	580-586 (15)

ceased (65 FR 38778; 22 June 2000, Hobbs et al. 2000a). However, the lack of a significant trend since 1998 indicates that recovery has not yet begun. Two fisheries suspected of possibly incurring incidental serious injuries or mortalities of beluga whales were observed in 1999 and 2000, and no takes of beluga whales were observed. At present, annual commercial fishery-related mortality levels can be considered insignificant and approaching zero mortality and serious injury rate. In addition, based on the level of subsistence harvest in 1999 and the fact that there is currently a moratorium on the harvest, the annual level of human-caused mortality (1.0) does not exceed the PBR (2.0) level for this stock. However, because the Cook Inlet beluga whale stock has been designated as “depleted” under the MMPA, the Cook Inlet beluga whale stock is classified as strategic.

Efforts to develop co-management agreements with Native organizations for several marine mammal stocks harvested by Native subsistence hunters across Alaska, including belugas in Cook Inlet, have been underway for several years. In 1995, development of an umbrella agreement among the Indigenous People’s Council for Marine Mammals, U.S. Fish and Wildlife Service, and NMFS was initiated. The agreement was ultimately signed in August 1997. During 1998, efforts were initiated to formalize a specific agreement with local Alaska Native organizations and NMFS regarding the management of Cook Inlet belugas, but without success. In the absence of a co-management agreement, Federal legislation was implemented in May 1999, placing a moratorium on beluga hunting in Cook Inlet until a co-management agreement is completed. Co-management agreements between NMFS and the Cook Inlet Marine Mammal Council have since been signed in 2000, 2001, and 2002.

**Habitat Concerns**

Observation and tagging data both indicate that the northernmost parts of upper Cook Inlet, including the Susitna Delta, Knik Arm, and Chickaloon Bay, are the focus of the stock’s distribution in both summer (Rugh et al. 2000) and winter (Hobbs et al. in review). Because of the very restricted range of this stock, Cook Inlet beluga can be assumed to be sensitive to human-induced or natural perturbations in this area of Cook Inlet. Although the best available information indicated that human activities, including oil and gas development, had not caused the stock to be in danger of extinction as of 2000 (65 FR 38778; 22 June 2000), habitat concerns remain. Contaminants from a variety of sources, sound, onshore or offshore development, and construction have the potential to impact this stock or its habitat.

#### CITATIONS

- Dizon, A. E., C. Lockyer, W. F. Perrin, D. P. DeMaster, and J. Sisson. 1992. Rethinking the stock concept: a phylogeographic approach. *Conserv. Biol.* 6:24-36.
- Ferrero, R. C. 1999. Minutes from the tenth meeting of the Alaska Scientific Review Group, 6-8 October 1999, Juneau, Alaska. 42 pp. (available upon request - National Marine Mammal Laboratory, 7600 Sand Point Way, NE, Seattle, WA 98115)
- Frost, K. J., and L. F. Lowry. 1990. Distribution, abundance, and movements of beluga whales, *Delphinapterus leucas*, in coastal waters of western Alaska. Pp. 39-57 *In* T. G. Smith, D. J. St. Aubin, and J. R. Geraci (eds.), *Advances in research on the beluga whale, Delphinapterus leucas*. *Can. Bull. Fish. Aquat. Sci.* 224.
- Gurevich, V. S. 1980. Worldwide distribution and migration patterns of the white whale (beluga), *Delphinapterus leucas*. *Rep. Int. Whal. Comm.* 30:465-480.
- Hansen, D. J., and J. D. Hubbard. 1999. Distribution of Cook Inlet beluga whales (*Delphinapterus leucas*) in winter. Final Rep. OCS Study. MMS 99-0024. U.S. Dep. Int., Minerals Management Serv. Alaska OCS Region, Anchorage, AK. v. p.
- Hazard, K. 1988. Beluga whale, *Delphinapterus leucas*. Pp. 195-235 *In* J. W. Lentfer (ed.), *Selected marine mammals of Alaska. Species accounts with research and management recommendations*. Marine Mammal Commission, Washington, D.C.
- Hill, P. S., D. P. DeMaster, and R.J. Small (eds.) 1997. Alaska marine mammal stock assessments, 1996. U. S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-78. 150pp.
- Hill, P. S. and D. P. DeMaster (eds.) 1998. Alaska marine mammal stock assessments, 1998. U. S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-97. 166pp.
- Hobbs, R. C, D. J. Rugh, and D. P. DeMaster. 2000a. Abundance of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska, 1994-2000. *Mar. Fish. Rev.* 62(3):37-45.
- Hobbs, R.C., J. M. Waite, and D.J. Rugh. 2000b. Beluga, *Delphinapterus leucas*, group sizes in Cook Inlet, Alaska, based on observer counts and aerial video. *Mar. Fish. Rev.* 62(3):46-59.
- Hobbs, R.C., K. L. Laidre, D. J. Vos, B. A. Mahoney, and M. Eagleton. In review. Movements and area use of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska. *Arctic*.
- Laidre, K. L., K. E. W. Shelden, D. J. Rugh, and B. Mahoney. 2000. Beluga, *Delphinapterus leucas*, distribution and survey effort in the Gulf of Alaska. *Mar. Fish. Rev.* 62(3):27-36.
- Mahoney, B. A. and K. E. W. Shelden. 2000. Harvest history of belugas, *Delphinapterus leucas*, in Cook Inlet, Alaska. *Mar. Fish. Rev.* 62(3):124-140.
- Manly, B. F. J. In review. Incidental catch and interactions of marine mammals and birds in the Cook Inlet salmon driftnet and setnet fisheries, 1999-2000. Draft report to the NMFS Alaska Region. 83 pp.
- NMFS. 2004. Subsistence harvest management plan for Cook Inlet beluga whales. Prepared by the National Marine Fisheries Service, Silver Spring, Maryland. 11 pp.
- O'Corry-Crowe, G. E., A. E. Dizon, R. S. Suydam, and L. F. Lowry. 2002. Molecular genetics studies of population structure and movement patterns in a migratory species: The beluga whale, *Delphinapterus leucas*, in the western neartic. Pp. 464 *In* C. J. Pfeiffer (ed.), *Molecular and cell biology of marine mammals*. Kreiger Publishing Company, Malabar, Florida.
- Rugh, D. J., K. E. W. Shelden, and B. Mahoney. 2000. Distribution of beluga whales in Cook Inlet, Alaska, during June/July, 1993 to 1999. *Mar. Fish. Rev.* 62(3):6-21.
- Shelden, K. E. W., D. J. Rugh, B. A. Mahoney, and M. E. Dahlheim. 2003. Killer whale predation on belugas in Cook Inlet, Alaska: Implications for a depleted population. *Mar. Mammal Sci.* 19(3):529-544.
- Small, R.J. and D. P. DeMaster (eds.) 1995. Alaska marine mammal stock assessments, 1995. U. S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-57. 93pp.
- Wade, P. R., and R. Angliss. 1997. Guidelines for assessing marine mammal stocks: report of the GAMMS workshop April 3-5, 1996, Seattle, Washington. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-OPR-12, 93 pp.



search



Pets



Wildlife



Farm Animals



Marine Mammals



Animals in Research

- Press Releases
- Humane Society Magazines and Newsletters
- Humane Society Press
- Humane Bookshelf

HSUS >> Press and Publications >> Press Releases

## Federal Court Orders Agency to Halt Controversial Research on Steller Sea Lions

May 26, 2006

WASHINGTON -- The Humane Society of the United States (HSUS) hailed today's decision by the United States District Court for the District of Columbia blocking invasive research on threatened and endangered Stellar sea lions on the West coast of the United States. The court put on hold additional research until the agency complies with the Marine Mammal Protection Act (MMPA), the National Environmental Policy Act (NEPA) and the Endangered Species Act.

The animal protection organization filed suit in July 2005 after NMFS issued numerous permits authorizing invasive research on the animals.

The research in question involved the annual capture and hot branding of 3,000 Steller sea lions. After branding, the sea lions were further subjected to painful research procedures, including teeth extraction and removal of fat and other tissue samples, often with no anesthesia.

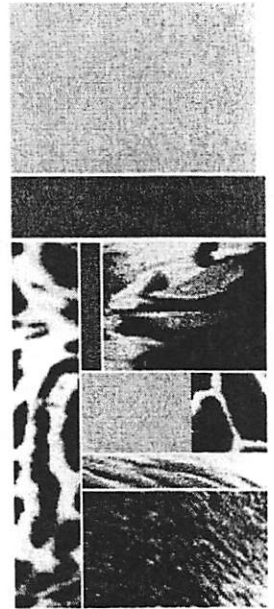
"We are so pleased that the Court rejected the government's plan to hurt endangered sea lions first and think about the consequences later," said Jonathan R. Lovvorn, vice president of animal protection litigation for The HSUS.

NMFS had contended that the research was necessary to determine the nature and extent of the decline of the species. The HSUS, however, filed suit because the research was poorly conceived and could actually have adverse consequences for the Steller sea lion.

The HSUS had repeatedly asked NMFS to conduct a proper environmental evaluation of the effects of the research prior to issuing the research permits; to convene an expert panel to review the best methods of research; and to place a moratorium on the issuance of any further research permits until it has completed an evaluation of impacts of the current research.

In her order, Judge Ellen Huvelle granted The HSUS's motion for summary judgment on its NEPA claim, vacated the research permits and any permit amendments, and ordered NMFS to prepare an Environmental Impact Statement prior to issuing permits.

In light of the news, John Grandy, senior vice president for wildlife and habitat protection for The HSUS stated, "The obligation of scientists and the government to do no harm while conducting research is greatest when dealing with endangered species, whose very future can be jeopardized by invasive or harmful protocols."



- About Us
- Donate Now
- Legislation and Laws
- In the Courts
- Publications
- Press Room
- International Programs
- HSUS in the Field
- Animal Channel
- Humane Living

Member Offers

### Join Our Online Community

Receive action alerts, tips, news and special offers via e-mail.

First Name

Last Name

Your Email here

Zip Code

JOIN



**THE HUMANE SOCIETY OF THE UNITED STATES**  
2100 L Street, NW  
Washington, DC 20037  
202-452-1100

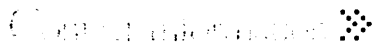


The case is captioned The Humane Society of the United States, et al. v. The Department of Commerce, et al.

The plaintiffs in the case were represented pro bono by the law firm of Latham and Watkins and Kimberly McCormick, a public interest attorney in Washington State.

-30-

*The Humane Society of the United States is the nation's largest animal protection organization representing more than 9.5 million members and constituents. The non-profit organization is a mainstream voice for animals, with active programs in companion animals, disaster preparedness and response, wildlife and habitat protection, animals in research, equine protection and farm animal welfare. The HSUS protects all animals through education, investigation, litigation, legislation, advocacy, and field work. The group is based in Washington and has numerous field representatives across the country. On the web at [www.hsus.org](http://www.hsus.org).*



Rachel Query, 301-258-8255

E-MAIL THIS PAGE

PRINTER FRIENDLY 

Copyright © 2006 The Humane Society of the United States. All rights reserved. | [Privacy Policy](#) | [Contact Us](#)



UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

---

THE HUMANE SOCIETY OF THE )  
UNITED STATES, *et al.*, )  
 )  
Plaintiffs, )  
 )  
v. ) Civil Action No. 05-1392 (ESH)  
 )  
DEPARTMENT OF COMMERCE, )  
*et al.*, )  
 )  
Defendants. )

---

**ORDER**

For the reasons stated in the accompanying Memorandum Opinion, it is hereby  
**ORDERED** that plaintiffs' Motion for Summary Judgment [#11] is **GRANTED**  
and judgment is entered for plaintiffs on their NEPA claim insofar as NMFS has violated  
the APA by acting arbitrarily and capriciously and contrary to law by failing to prepare  
an EIS prior to its issuance of the contested permits and permit amendments; it is

**FUTHER ORDERED** that defendants' Cross-Motion for Summary Judgment  
[#14] is **DENIED**; it is

**FURTHER ORDERED** that this matter is remanded to NMFS for preparation of  
an EIS; it is

**FURTHER ORDERED** that the contested permits and permit amendments be  
vacated; it is

**FURTHER ORDERED** that plaintiffs' Motion to Supplement the Administrative Record [#20] is **GRANTED**.

**SO ORDERED.**

s/  
**ELLEN SEGAL HUVELLE**  
United States District Judge

Date: May 26, 2006

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

---

<b>THE HUMANE SOCIETY OF THE</b>	)	
<b>UNITED STATES, <i>et al.</i>,</b>	)	
	)	
<b>Plaintiffs,</b>	)	
	)	
<b>v.</b>	)	<b>Civil Action No. 05-1392 (ESH)</b>
	)	
<b>DEPARTMENT OF COMMERCE,</b>	)	
<b><i>et al.</i>,</b>	)	
	)	
<b>Defendants.</b>	)	

---

**MEMORANDUM OPINION**

Plaintiffs The Humane Society of the United States, Will Anderson and Sharon Young have sued Carlos M. Gutierrez, Secretary of the United States Department of Commerce; Conrad C. Lautenbacher, Administrator of the National Oceanic and Atmospheric Administration; William T. Hogarth, Assistant Administrator of the National Marine Fisheries Service; and the National Marine Fisheries Service, claiming violations of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.*; the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*; the Marine Mammal Protection Act ("MMPA"), 16 U.S.C. § 1374 *et seq.*; and the Administrative Procedures Act ("APA"), 5 U.S.C. § 701 *et seq.* They challenge the issuance and amendment of various permits that authorize research on threatened and endangered populations of Steller sea lions. Pending before the Court are plaintiffs' Motion for Summary Judgment and defendants' Cross-Motion for Summary Judgment. For the reasons discussed below, the Court grants plaintiffs' motion with respect to their NEPA claims.

## BACKGROUND

Following a dramatic decline in the Alaskan population of Steller sea lions over thirty years, they were first classified as threatened in 1990. *See* Listing of Steller Sea Lions as Threatened Under the Endangered Species Act, 55 Fed. Reg. 49,204, 49,208 (Nov. 26, 1990) (final rule) (noting that the number of Steller sea lions living from Kenai Peninsula to Kiska Island, Alaska declined by 82 percent between 1960 and 1989). (*See also* AR 259 at 338 ("Th[e] species has experienced a marked decline from an estimated 240,000-300,000 individuals in the 1960s . . . to an estimated 116,000 individuals in 1989. Population numbers in the United States have declined by about 75% over the past 20 years . . . with most of the decline occurring in the western stock.")) In the wake of this classification, two distinct populations of Steller sea lions were identified in their range along the North Pacific Rim: an eastern stock, including all animals distributed from central California northward to Cape Suckling, Alaska, and a western stock, including all animals distributed from Cape Suckling to Hokkaido, Japan. *See* Change in Listing Status of Steller Sea Lions Under the Endangered Species Act, 62 Fed. Reg. 24,345, 24,346 (May 5, 1997); Listing of Steller Sea Lions as Threatened Under the Endangered Species Act, 55 Fed. Reg. 29,793, 29,795 (Jul. 20, 1990) (proposed rule). In 1997, after determining that the subsequent two decades would be crucial to the western population's survival, the Department of Commerce's National Marine Fisheries Service ("NMFS") reclassified the western stock as endangered, maintaining the eastern stock's threatened classification. 62 Fed. Reg. at 24,346-347 (noting that one model "predicted a 100 percent probability of extinction [for the western population segment] within 100 years from the 1985-94 trend data, and a 65 percent probability of extinction within 100 years if the 1989-94 trend continue[d]").

While researchers began investigating the decline of the Steller sea lion with its identification in the 1980s, funding for such research remained modest for more than a decade. *See* 62 Fed. Reg. at 24,346 (discussing research); 55 Fed. Reg. at 29,795 (same). (Answer ¶ 59 ("NOAA . . . research funding during the 1990s was less than \$1 million.")) This changed with the passage of the Consolidated Appropriations Act of 2001, which declared that "the western population of Steller sea lions ha[d] substantially declined over the last 25 years" and thus "scientists should closely research and analyze all possible factors relating to such decline . . . ." Pub. L. No. 106-554, § 209(a)(1)-(2), 114 Stat. 2763, 2763A-176 (2000). In furtherance of this research, Congress appropriated more than \$40 million for studies regarding "available prey species . . . [,] predation by other marine mammals . . . [,] interactions between fisheries and Steller sea lions . . . [,] regime shift, climate change, and other impacts associated with changing environmental conditions in the North Pacific and Bering Sea . . . [,] juvenile and pup survival rates . . . [,] nutritional stress" and other potential factors contributing to the sea lions' decline. *Id.* §§ 206, 209, 114 Stat. at 2763A-176; *see also* Steller Sea Lion Research Initiative (SSLRI), 66 Fed. Reg. 15,842 (Mar. 21, 2001) (notice of availability of funds). This amount was augmented by an almost identical sum the following year. (*See* AR 406 at 7-8, 53 (summarizing the various federal appropriations for Steller sea lion research).) The resulting research fund was the largest ever dedicated to a single species. (Compl. ¶ 59; Answer ¶ 59.)

After receiving numerous applications for permits and permit amendments authorizing research relating to the threatened and endangered Steller sea lion populations,<sup>1</sup> NMFS opened

---

<sup>1</sup> Permits are required for invasive research on Steller sea lion populations under the MMPA and ESA. In 1972, the MMPA established a moratorium on the "tak[ing]" of marine mammals -- a term broadly defined as including "harass[ing], hunt[ing], captur[ing], or kill[ing], or attempt[ing] to harass, hunt, capture, or kill any marine mammal." 16 U.S.C. §§ 1362(13), 1371(a); *see also id.* § 1362(18)(A) (defining "harassment" as "any act of pursuit, torment, or annoyance which . . . has the potential to injure a marine mammal or marine mammal stock in the wild" or "has the potential to disturb a marine mammal or marine mammal stock in the wild

an investigation into the potential effects of the proposed studies on the environment in 2002. (See AR 406 at 11.) In a June 2002 Environmental Assessment ("EA") and Finding of No Significant Impact ("FONSI"), the agency concluded that authorization of the requested studies through 2004,<sup>2</sup> with certain mitigating measures, would not significantly affect the human environment. (*Id.* at 12-13.) A November 2002 Biological Opinion ("BO") determined that the permits were "not likely to jeopardize the continued existence of the endangered western population of Steller sea lions or the threatened eastern population of Steller sea lions." (AR 389 at 73 (Nov. 12, 2002 BO).) Based on these findings, NMFS issued research permits and permit amendments allowing the "harassment" of sea lion populations through aerial and boat-based surveys; ground counts; scat, blood and biopsy collection; capture and restraint; tagging and branding; tooth extraction; attachment of scientific instruments; and other research activities. (See AR 406 at 79-83; AR 389 at 10-31.) The permits also authorized stated amounts of "incidental mortality." (*Id.*)<sup>3</sup>

---

by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering"). The Act, however, provides for the issuance of permits authorizing the taking of marine mammals "for scientific research purposes" when an applicant demonstrates "that the taking is required to further a bona fide scientific purpose[.]" *Id.* § 1374(c)(3)(A)-(B); see also *id.* § 1362(22) (defining "bona fide research" as that with results that "likely would be accepted for publication in a referred scientific journal;" that "are likely to contribute to the basic knowledge of marine mammal biology or ecology;" or that "are likely to identify, evaluate, or resolve conservation problems"). If the targeted stock is depleted, the Secretary must also determine "that the results of such research will directly benefit that species or stock, or that such research fulfills a critically important research need." *Id.* Similarly, the ESA bars the "tak[ing]" of listed species, but provides for the issuance of permits authorizing takes "for scientific purposes or to enhance the propagation or survival of the affected species." *Id.* §§ 1538(a)(1), 1539(a)(1)(A); see also *id.* § 1532(19) ("The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.").

<sup>2</sup> The permits were later extended through December 31, 2005, by a "minor amendment" not subject to environmental review. (See AR 406 at 23.)

<sup>3</sup> NMFS later prepared a June 2003 Supplemental EA addressing the potential effects of two proposed amendments to permits held by Dr. Glenn VanBlaricom and the Alaska SeaLife

On April 4, 2005, NMFS published notice that eight individuals or institutions had submitted applications for five-year permits or three-year permit extensions authorizing further research of a similar character. (See AR 395 at 1 (Marine Mammals, 70 Fed. Reg. 17,072 (Apr. 4, 2005)).) In the same notice, the agency indicated that a related draft EA, which concluded that an Environmental Impact Statement ("EIS") need not be prepared as the proposed research would not have a significant effect on the human environment, was also available for review and comment. (See AR 395 at 3; AR 406.) The "scope" of the draft assessment included six environmental impact issues:

(1) Is NMFS able to coordinate research under the various permits and ensure that activities are not unnecessarily duplicative and do not result in significant adverse impacts on threatened and endangered Steller sea lions? (2) Is NMFS able to adequately monitor the effects of the overall research program on Steller sea lions? (3) Can NMFS coordinate and synthesize the data generated by this research program in a way that is useful or meaningful for conservation of Steller sea lions? (4) Are all of the research proposals consistent with permit issuance criteria under the MMPA and ESA, such as whether all of the projects are likely to contribute to conservation of Steller sea lions? (5) Does the amount of incidental mortality to be authorized represent a significant adverse impact on Steller sea lions? (6) What are the potential effects of various research activities, either individually or cumulatively, on Steller sea lions as a species?

(AR 395 at 3.)

Pursuant to federal regulations, NMFS was required to submit the permit applications for review by an independent federal agency, the Marine Mammal Commission ("MMC"), which had been established to provide oversight of the government's marine mammal conservation policies and programs. See 16 U.S.C. § 1401; 50 C.F.R. § 216.33(d)(2) (providing that permit applications must be forwarded to the MMC "for comment" and "[i]f no comments are received Center. (See AR 390 at 3 (June 2003 Supplemental EA).) The agency determined that the activities authorized under the amended permits would not have a significant effect on the human environment and issued the amendments. (See AR 406 at 12 (2005 EA).)



within 45 days . . . the Office Director will consider the Commission to have no objection to issuing a permit"). On May 19, 2005, the MMC submitted a five-page set of "preliminary comments" in response to the agency's request that it "expedite . . . review of the[] permit applications because of a pressing need to issue the permits." (Barrett Decl. Ex. 1 at 1.) While noting its "expect[ation]" that the agency would "defer final action on the applications" until it had had an opportunity to "complete [a] full review of the[] applications . . . in consultation with the Committee of Scientific Advisors as required under the Marine Mammal Protection Act," the MMC recommended that NMFS reconsider its finding and either offer additional explanation for its conclusion that the research would not have a significant impact on the environment, reduce the scope of the approved research projects, or prepare an EIS. (*Id.* at 5.) This recommendation, the MMC indicated, was essentially identical to that it had made following a review of the agency's 2002 EA and related permit applications. (*Id.*)

On May 24, 2005, prior to the MMC's completion of its final comments on the action,<sup>4</sup> NMFS issued its Final EA, a FONSI declaring that "preparation of an Environmental Impact Statement . . . [was] not required by . . . the National Environmental Policy Act[.]" and a BO (the "2005 BO") concluding that "the research program, as proposed, [was] not likely to jeopardize the continued existence of the endangered western population of Steller sea lions or the threatened eastern population of Steller sea lions." (AR 404 at 1 (FONSI); AR 406 (EA); AR 407 at 69 (BO).) Soon thereafter, the agency issued the requested permits and amendments, authorizing the repeated taking of more than 200,000 sea lions in the course of annual vessel and aerial surveys; the taking of more than 140,000 sea lions during ground-based research; an annual incidental mortality of up to 60 sea lions, including up to 20 from the endangered western

---

<sup>4</sup> The MMC provided NMFS with final comments affirming its preliminary recommendation on June 10, 2005. (Barrett Decl. Ex. 2.)

stock; the annual capture or restraint of more than 3,000 sea lions; the branding of more than 2,900 sea lions; the annual attachment of scientific instruments to more than 700 sea lions; and various other research activities. (*See Answer* ¶ 69 (indicating that the agency issued the first of the permits on May 27, 2005); AR 113 at 1 (June 16, 2005 Federal Register notice of permit and permit amendment issuance); AR 406 App. E (activity tables for proposed action); Defs.' Opp'n at 7-8 ("In 2005, NMFS increased the maximum number of animals that could be studied during this research to 527,690 western and eastern sea lions, an increase of approximately 59 percent.")) The action increased the number of issued permits, extended the duration of the permitted research, authorized new research methods,<sup>5</sup> and raised both the number of annual takes and their frequency. (AR 406 at 27-30, 43.) The permits did not, however, authorize the intentional killing of any Steller sea lions as part of any scientific study. (*See id.* 53, 103-119.)

Following the conclusion of the agency's inquiry into the ecological impacts of the various permit applications, Assistant Administrator for Fisheries William T. Hogarth met with representatives of The Humane Society in order to discuss the Society's objections to the agency's issuance of the permits. (*See Barrett Decl. Ex. 3* (Hogarth letter); AR 402 (Society's May 17, 2005 letter to Hogarth).) In a June 27, 2005 letter to the Society's counsel, Hogarth stated that NMFS "share[d] [the Society's] concerns over the scope of the research on Steller sea lions" and indicated that the agency had accordingly "decided to prepare an environmental impact statement . . . on the effects of scientific research on this species." (*Barrett Decl. Ex. 3.*) This decision was announced publicly on December 28, 2005, when NMFS published notice of its "intent to prepare an Environmental Impact Statement . . . to analyze the environmental impacts of administering grants and issuing permits associated with research on endangered and

---

<sup>5</sup> The newly-authorized activities included the surgical implantation of transmitters, an activity the EA characterized as having "an inherent risk of serious injury and mortality in the short term and an unknown risk of long-term effects on fitness and survival." (AR 406 at 43.)

threatened Steller sea lions (*Eumetopias jubatus*) and depleted northern fur seals (*Callorhinus ursinus*)." Notice of Intent to Prepare an Environmental Impact Statement on Impacts of Research on Steller Sea Lions and Northern Fur Seals Throughout Their Range in the United States, 70 Fed. Reg. 76,780 (Dec. 28, 2005). "Based on comments received on Environmental Assessments prepared in 2002 and 2005 for permitting research on Steller sea lions," the agency identified the following six issues for public comment and later consideration in its EIS: the "[t]ypes of research methods and protocols permitted[;]" the "[l]evel of research effort" required for management and conservation, and potential means of limiting takes; the "[c]oordination of research" among various individuals and institutions; the "[e]ffects of research" on animal populations; the "[q]ualification of researchers" operating under permits; and possible "[c]riteria for allowing modifications or amendments to existing grants and permits[,] for denying permit amendments[,] and for suspending or revoking permits." *Id.* at 76,781-82.

On July 12, 2005, and prior to the agency's Federal Register notice announcing its intent to prepare an EIS, plaintiffs filed suit alleging that defendants had violated NEPA by declining to prepare an EIS and by relying on an EA that failed to satisfy the statute's requirements; that their 2005 BO contravened the ESA by failing to properly evaluate the direct, indirect and cumulative impacts on Steller sea lions from the research activities authorized by the permits; and that they had violated the MMPA by failing to follow regulations requiring that they not issue permits until the MMC had completed its comments and by authorizing incidental mortalities that would exceed the Steller sea lion's Potential Biological Removal level ("PBR level"). Defendants respond by arguing that the agency's EA, FONSI and 2005 BO constitute a thorough analysis of the environmental factors; that the permits, which do not authorize a level of mortality sufficient to significantly impair the recovery of the western stock, were issued only

after NMFS had the benefit of the MMC's comments; and, in any event, that the plaintiffs' challenge to the 2005 BO is now moot since a revised BO (the "2006 BO") was issued on March 3, 2006.<sup>6</sup>

## ANALYSIS

### I. Standard of Review

Under the judicial review provisions of the APA, an administrative action may be set aside only where it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *See* 5 U.S.C. § 706(2)(A)-(D); *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 375 (1989). The question is therefore one of reasonableness -- "this court will not second guess an agency decision or question whether the decision made was the best one." *C & W Fish Co., Inc. v. Fox, Jr.*, 931 F.2d 1556, 1565 (D.C. Cir. 1991). While agency actions are presumed valid and granted substantial deference, especially in cases involving a scientific determination within an agency's area of expertise, *see Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983), they are not spared a "thorough, probing, in-depth review." *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 415 (1971); *see also Marsh*, 490 U.S. at 378 (A court's review of administrative action "must be searching and careful," though "the ultimate standard of review is a narrow one.") (internal quotations omitted). Agencies must consider the relevant information and provide a satisfactory explanation for their actions, including a

---

<sup>6</sup> In their opposition, defendants also challenged plaintiffs' standing, contending that the allegations of injury made in their complaint were insufficient and plaintiffs had otherwise "failed to provide affidavits or other evidence demonstrating that they have suffered actual injury." (Defs.' Opp'n at 17-18.) Plaintiffs, however, have since supplied declarations documenting their injuries -- Anderson as an observer of the species with plans to travel to Washington and Oregon before the end of the year, and Young as an active Steller sea lion observer and advocate. (Pls.' Rep. Exs. 1 and 2.) Defendants have correctly omitted any further argument regarding standing from their reply. *See Communities for a Great Northwest, Ltd. v. Clinton*, 112 F.Supp. 2d 29, 33 (D.D.C. 2000) ("The trial court may allow plaintiffs the opportunity to supply by affidavits further particularized allegations of fact in support of standing[.]").

"rational connection between the facts found and the choice made." *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962). When reviewing an agency's explanation, courts must "consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.*, 419 U.S. 281, 285 (1974)).

Normally, an agency [action] would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

*Id.* When an agency has proceeded in such a manner, the resulting action must be abandoned, for courts "may not supply a reasoned basis for the agency's action that the agency itself has not given." *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947).

## II. NEPA

Under NEPA, an agency proposing a "major Federal action[] significantly affecting the quality of the human environment" is required to prepare an EIS giving thorough consideration to, among other things, the ecological impacts of the action and any available alternatives to the proposal. 42 U.S.C. § 4332(2)(C). "If any "significant" environmental impacts might result from the proposed agency action then an EIS must be prepared *before* agency action is taken." *Grand Canyon Trust v. F.A.A.*, 290 F.3d 339, 340 (D.C. Cir. 2002) (quoting *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) (emphasis in original)). As defined by regulations issued by the Council on Environmental Quality, significance is a function of both the "context" and "intensity" of the proposed action. 40 C.F.R. § 1508.27. In considering the

context of an action, an agency is to address its impact upon "society as a whole (human, national), the affected region, the affected interests, and the locality." *Id.* § 1508.27(a). The question of an action's "intensity" is a more complex inquiry, turning on such factors as potential "[i]mpacts that may be both beneficial and adverse[;]" the "degree to which the proposed action affects public health or safety[;]" any "[u]nique characteristics of the geographic area" in which the action is to be taken; the "degree to which the effects on the quality of the human environment are likely to be highly controversial[;]" the "degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks[;]" the "degree to which the action may adversely affect an endangered or threatened species[;]" the "degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration[;]" and "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts." *Id.* at 1508.27(b); *see also Pub. Citizen v. Dep't of Transp.*, 316 F.3d 1002, 1023 (9th Cir. 2003) ("The presence of one or more of these factors should result in an agency decision to prepare an EIS.").

As the ecological significance of administrative actions are often less than self-evident, agencies may begin their evaluation of a proposed action by preparing an EA -- "a concise public document . . . that serves to . . . [b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact." 40 C.F.R. § 1508.9(a)(1). If the agency concludes, on the basis of its assessment, that the action is not one "significantly affecting the quality of the human environment," it may prepare a FONSI and thereby avoid preparation of an EIS. *Id.* §§ 1501.4(e), 1508.13. The standard for evaluating such a finding is well established in this Circuit:

First, the agency must have accurately identified the relevant environmental concern. Second, once the agency has identified the problem, it must have taken a "hard look" at the problem in preparing the EA. Third, if a finding of no significant impact is made, the agency must be able to make a convincing case for its finding. Last, if the agency does find an impact of true significance, preparation of an EIS can be avoided only if the agency finds that changes or safeguards in the project sufficiently reduce the impact to a minimum.

*Sierra Club v. Dep't of Transportation*, 753 F.2d 120, 127 (D.C. Cir. 1985).

Plaintiffs argue that the issuance of the research permits was an action from which "significant" environmental impacts might result," *Sierra Club*, 717 F.2d at 1415, thus requiring the preparation of an EIS. A number of arguments are made in support of this contention: (1) the agency has conceded the need to prepare an EIS; (2) the permitted research will result in mortality levels exceeding the western stock's PBR level, making the agency's approval of the permits a significant action; and (3) the effects of the permitted research are highly controversial, highly uncertain, and cumulatively significant, again making the agency's approval of the permits a significant action. (Pls.' Mem. at 14-24.) The Court will now address each of these claims.

#### **A. NMFS's Admission of the Need for an EIS**

Plaintiffs' argument that NMFS has conceded the need for an EIS cannot be addressed without first resolving another question: whether Assistant Administrator Hogarth's June 27, 2005 letter to the Society and the agency's later announcement of an EIS may be considered in reviewing the agency's authorization of the contested permits.

##### **1. Supplementation of the Administrative Record**

"It is well settled that judicial review of agency action is normally confined to the full administrative record before the agency at the time the decision was made." *Env'tl. Def. Fund*,

*Inc. v. Costle*, 657 F.2d 275, 284 (D.C. Cir. 1981). "[T]he focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court." *Camp v. Pitts*, 411 U.S. 138, 142 (1973). The D.C. Circuit, however, has recognized a number of exceptions to this rule, indicating that additional evidence may be considered where "the agency failed to consider factors which are relevant to its final decision[,]" the "agency considered evidence which it failed to include in the record[,]" "evidence arising after the agency action shows whether the decision was correct or not" or "in cases arising under the National Environmental Policy Act[.]" *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989); *see also Izaak Walton League of Am. v. Marsh*, 655 F.2d 346, 369 n.56 (D.C. Cir. 1981) ("Allegations that an impact statement fails to consider serious environmental consequences or realistic alternatives raise issues sufficiently important to warrant introduction of new evidence in the District Court."); *Suffolk County v. Sec'y of Interior*, 562 F.2d 1368, 1384-85 (2d Cir. 1977) ("[A]llegations that an EIS has neglected to mention a serious environmental consequence, failed adequately to discuss some reasonable alternative, or otherwise swept 'stubborn problems or serious criticism . . . under the rug' . . . raise issues sufficiently important to permit the introduction of new evidence in the district court . . . in suits attacking [a FONSI].").

As defendants emphasize, this is not a case where extra-record evidence is appropriately considered as proof of an environmental factor inappropriately excluded from consideration by the assessing agency. (*See* Defs.' Opp'n to Pls.' Mot. to Supplement at 2-3, 5 (citing cases); *see also id.* at 5-6 ("[A]n admission by itself is not a recognized exception to the rule limiting review to the record unless it also transmits or documents a discrete environmental factor that NMFS must consider under federal law but did not consider previously in the record.")) This



argument, however, does not resolve the matter for, as explained herein, Assistant Administrator Hogarth's letter and the subsequent Federal Register notice outlining the scope of NMFS's pending EIS have a direct bearing on the correctness of the agency's decision, speaking to both the degree to which the effects of the research were "likely to be highly controversial" and the degree to which they were "likely to be highly uncertain." *See* 40 C.F.R. § 1508.27(b) (outlining "significance" factors). The Court will therefore permit the record to be supplemented as the documents are directly relevant to a determination of whether an EIS is required in this case.

## **2. The Announcement of the Pending EIS**

In announcing the availability of its 2005 EA for review and comment, NMFS characterized the draft as addressing "six environmental impact issues" relating to the issuance of the permits -- among them, the coordination of research activities, monitoring of the research's effects, and the resulting impact on Steller sea lion populations.<sup>7</sup> In his June 27, 2005 letter, Assistant Administrator Hogarth responded to The Humane Society's questions regarding the agency's decision not to prepare an EIS by stating that the agency "share[d] [the Society's] concerns over the scope of the research on Steller sea lions" and would therefore "prepare an environmental impact statement . . . on the effects of scientific research on this species." (*See* Barrett Decl. Ex. 3 (Hogarth letter); AR 402 (Society's May 17, 2005 letter to Hogarth).)

---

<sup>7</sup> The issues were identified as (1) the agency's ability "to coordinate research under the various permits and ensure that activities are not unnecessarily duplicative and do not result in significant adverse impacts on threatened and endangered Steller sea lions[;]" (2) the agency's ability to "adequately monitor the effects of the overall research program on Steller sea lions[;]" (3) the agency's ability to "coordinate and synthesize the data generated by this research program in a way that is useful or meaningful for conservation of Steller sea lions[;]" (4) whether the various research proposals were "consistent with permit issuance criteria under the MMPA and ESA, such as whether all of the projects are likely to contribute to conservation of Steller sea lions[;]" (5) whether the level of incidental mortality authorized under the permits "represent[ed] a significant adverse impact on Steller sea lions[;]" and (6) "the potential effects of various research activities, either individually or cumulatively, on Steller sea lions as a species[.]" (AR 395 at 3.)

Hogarth's letter was followed by a December 28, 2005 Federal Register notice stating that NMFS would prepare an EIS "analyz[ing] the environmental impacts of administering grants and issuing permits associated with research on endangered and threatened Steller sea lions" and identifying six issues for public comment -- among them, the coordination of research activities, monitoring of the research's effects, and the resulting impact on Steller sea lion populations.<sup>8</sup>

As evidenced by the timing and substance of these documents, defendants' attempt to characterize the Assistant Administrator's letter and the agency's subsequent notice as an unremarkable announcement of a broadened, programmatic review is belied by the record. (*See* Defs.' Opp'n at 21-22; Defs.' Rep. at 16-17.) Defendants' acknowledgment that the agency remained concerned with the "scope" of Steller sea lion research and its "effects" on the species contradicts the FONSI issued over Hogarth's signature less than a month earlier, indicates a continuing lack of confidence in the agency's prior determination regarding the significance of the permitted activities, and evidences the "highly uncertain" and "controversial" nature of the studies' effects on endangered and threatened populations. *See* 40 C.F.R. § 1508.27(b).

Similarly, the agency's December 28, 2005 announcement, which raises concerns that are substantially the same as those stated in the April 4, 2005 Federal Register notice outlining the scope of the Service's draft assessment (*compare* note 7 with note 8), reflects a recognition that the issues ostensibly resolved in NMFS's Final EA still remain to be studied. While defendants

---

<sup>8</sup> The issues identified for public comment were: (1) the varieties of "research methods and protocols" to be authorized; (2) the appropriate "[l]evel of research effort" and the available means of establishing limits, including the sufficiency of "current methods to assess and document numbers of different 'takes'" resulting from permitted conduct; (3) the "[c]oordination of research[.]" including possible mechanisms for ensuring cooperation among researchers in order to reduce the adverse impact on the species as well as methods allowing the compilation of information from different sources; (4) the "[e]ffects" of the various authorized research methods on the populations; (5) the "[q]ualification of researchers" operating under permits; and (5) any possible "[c]riteria for allowing modifications or amendments to existing grants and permits[.]" for denying permit amendments[.], and for suspending or revoking permits." 70 Fed. Reg. at 76,781-82.

reiterate that the pending EIS pertains not only to the contested permits but rather the "entire program of both administrating congressional sea lion research grants and issuing related research permits" (Defs.' Rep. at 17), this does not demonstrate its irrelevance here. In determining whether the issuance of the contested permits and permit amendments would significantly affect the environment, NMFS was required to consider the cumulative impacts of the action -- "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 C.F.R. § 1508.7; *see also id.* § 1508.27(b)(7).

Thus, the question before the agency in evaluating the significance of the proposed research was considerably broader than defendants' argument suggests, for Hogarth's letter and the agency's subsequent announcement of its intent to prepare an EIS clearly suggest the need to complete an EIS prior to the issuance of the contested permits.

#### **B. PBR Level**

With the passage of the MMPA, Congress declared that "species and population stocks of marine mammals . . . should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part[.]" 16 U.S.C. § 1361(1). The Act accordingly provides, "consistent with this major objective," that marine mammal populations "should not be permitted to diminish below their optimum sustainable population" -- "the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element." *Id.* §§ 1361(1), 1362(9). Among the statute's mechanisms for achieving this end is a requirement that the Secretary of Commerce

prepare an annual or triennial stock assessment for each species that, among other things, describes the range of the stock; estimates the stock's minimum population and present productivity rates; estimates the amount of mortality and serious injury suffered by the stock as a result of human activity; discusses the impact of the stock's interaction with commercial fisheries; and categorizes the stock as either likely or unlikely to be reduced below its optimum sustainable population level by human-caused mortality and serious injury. *Id.* § 1386(a)(1)-(5). As a means of measuring the impact of human activity, each assessment must also estimate the PBR level for the relevant stock -- "the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population." *Id.* §§ 1362(20); 1386(a)(6).

According to plaintiffs, the PBR level established for the western stock of Steller sea lions by NMFS is "an undeniable litmus test" for judging the significance of the agency's action, and this test was unreasonably ignored in the EA. (Pls.' Mem. at 21.) The most recent assessment of the western stock, plaintiffs note, established a PBR level of 208. (Pls.' Mem. at 19 (citing AR 401 at 4 (Society comments).) Because an estimated 171 western sea lions are killed each year as a result of native subsistence harvests and more than 29 perish annually as an incident to commercial fishing (*see* AR 401 at 4), plaintiffs contend that the potential annual research-related mortality of 20 western sea lions clearly exceeds the stock's PBR level and therefore involves a significant adverse impact requiring the preparation of an EIS. (Pls.' Mem. at 19 (citing Answer ¶ 74 ("Federal defendants admit that the annual mortality resulting from research activities may, in combination with other human-caused sources of mortality, exceed the PBR for the species, but deny that the impact to the species is per se significant and potentially irreversible."))

While defendants debate the relevance of the western stock's PBR level and the accuracy of plaintiffs' calculations (*see* Defs.' Opp'n at 23-26; Defs.' Rep. at 12, 20-21), the merits of their arguments are irrelevant, for the issue is not addressed in the agency's EA. *See W. Res., Inc. v. FERC*, 9 F.3d 1568, 1576 (D.C. Cir. 1993) ("[A] reviewing court 'must judge the propriety of [the agency's] action solely by the grounds invoked by the agency.'" (quoting *Chenery Corp.*, 332 U.S. at 194)). Though the comments of The Humane Society stressed the significance of authorizing further research with a potential for incidental mortalities that would meet or exceed the PBR level of the western population (*see* AR 401 at 4), NMFS failed to address this important issue in the Final EA.<sup>9</sup> In the absence of such analysis, one cannot conclude that the

<sup>9</sup> Moreover, in comparing the agency's 2002 and 2005 assessments, it is evident that discussions of the populations' PBR levels were removed without explanation from otherwise identical sections of the latter document. For instance, in its discussion the impacts of commercial fishing on Steller sea lion populations, the 2002 EA states:

Commercial fisheries can directly affect Steller sea lions by capturing, injuring, or killing them incidental to fishing operations. Estimates of rates of entanglement through the early 1980s suggest that mortalities from entanglement were a contributing factor in the decline of Steller sea lions in the Bering Sea, Aleutian Islands, and Gulf of Alaska. The relative impact of mortalities to marine mammals occurring incidental to commercial fisheries is estimated under the MMPA by comparing minimum annual mortality rate [sic] to a Potential Biological Removal (PBR) level. Recent estimates of the numbers of sea lions killed incidental to commercial fisheries is low (28.3/year for the western stock and 16/year for the eastern stock). The estimate of incidental takes in the eastern stock is considered negligible being significantly less than 10% of the PBR for that stock (PBR = 1,395 animals) and is not considered to have a significant effect on Steller sea lion population dynamics. The relative impact of Steller sea lion incidental mortality in commercial fisheries in the western population is approximately equal to 10% of PBR for that population and may increase as the western population declines, even if the rate of incidental takes remains constant.

(AR 384 at 40.)

In NMFS's 2005 assessment, all references to the populations' PBR levels were deleted:

agency took the requisite "hard look" at the mortality issue. *See Sierra Club*, 753 F.2d at 127; *U.S. Satellite Broad. Co., Inc. v. FCC*, 740 F.2d 1177, 1188 (D.C. Cir. 1984) (noting an agency's obligation to "respond[] in a reasoned manner to significant comments received" during the rulemaking process). The agency's failure is compounded by the EA's omission of an alternate metric by which to evaluate the significance of the incidental mortalities authorized under the various research permits. While separate sections of the document quantify the mortalities stemming from individual human activities, the assessment fails to provide a meaningful context for the figures, relying instead upon conclusory assertions of insignificant impact.<sup>10</sup> (*See, e.g.*, AR 406 at 58 ("While there was a low number of Steller sea lion mortalities incidental to the

---

Commercial fisheries can directly affect Steller sea lions by capturing, injuring, or killing them incidental to fishing operations. Estimates of rates of entanglement through the early 1980's suggest that mortalities from entanglement were a contributing factor in the decline of Steller sea lions in the Bering Sea, Aleutian Islands, and Gulf of Alaska. However, recent estimates of the numbers of sea lions killed incidental to commercial fisheries is low (28.3/year for the western stock and 16/year for the eastern stock) and is not considered to have a significant effect on Steller sea lion population dynamics. However, the relative impact of incidental mortality fisheries may increase as the population declines, even if the rate of incidental takes remains constant.

(AR 406 at 52.)

<sup>10</sup> In their reply, defendants contend that the record reflects sufficient consideration of the western stock's PBR level since "the agency specifically addressed PBR in its 2003 supplemental EA" and "[a] review of the 2002 EA reflects that the mitigation measure for accidental mortality . . . was derived based on the PBR of the western stock." (Defs.' Rep. at 10.) Defendants also note that "the 2005 EA incorporates by reference the 2000 and 2001 annual stock assessment reports for Steller sea lions, which discuss the methodology used to determine PBR and set forth the PBR levels for the western and eastern stocks." (*Id.* (offering no citations to the EA).) While NMFS was not precluded from incorporating relevant analysis from its previous evaluations, *see Sierra Club*, 753 F.2d at 127 (affirming a finding of no significant impact based in large part on the agency's prior EIS), it did not do so here. As shown in note 9, *supra*, the agency excised the prior discussion of the populations' PBR levels from its EA, relying instead on conclusory declarations of insignificance. Thus, defendants' attempt to incorporate a prior PBR analysis into the contested EA and FONSI cannot succeed.

research over the past two years, the total number was within that authorized by the permits and would not have a population level impact. Further, there was no evidence of an accelerated population decline as a result of research activities."); *id.* at 59 ("The proposed action is not expected to have a significant adverse impact on endangered or threatened species of marine mammal populations. The adverse effects of the proposed permits would be limited to effects on individual marine mammals.".)

In short, NMFS has not made a "convincing case" that the fatalities that may result from the expanded research program are unlikely to have a significant environmental effect. *See Sierra Club*, 753 F.2d at 127; *see also Citizens Exposing Truth About Casinos v. Norton*, 2004 U.S. Dist. Lexis 27498, \*23 (D.D.C. 2004) ("The Court . . . finds most troubling . . . the absence of any convincing explanation or 'evidence and analysis' for why the[] [catalogued] impacts are not to be regarded as significant.").

### **C. Controversial Effects**

Among the factors an agency must consider in determining whether a proposed action is likely to have a significant impact is "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial." 40 C.F.R. § 1508.27(b)(4). "The term "controversial" refers to cases where a substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use." *Town of Cave Creek, Ariz. v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (quoting *Found. for N. Am. Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1182 (9th Cir. 1982)) (emphasis removed).

Defendants reject plaintiffs' allegations of controversy, arguing that they have demonstrated nothing more than "opposition" or public criticism. (Defs.' Opp'n at 29.) In doing so, however, defendants mischaracterize the record. In its preliminary comments to the agency,

the MMC indicated that it "remain[ed] concerned" -- nearly three years after challenging the impact of the permits authorized in 2002 -- "that the cumulative effects of the proposed research, in combination with other factors that are affecting the western population of Steller sea lions, could have significant adverse impacts on the population." (Barrett Decl. Ex. 1 at 5.)<sup>11</sup>

Similarly, The Humane Society's May 4, 2005 comments challenged as "unsupported" the draft assessment's finding that the proposed research would not have adverse affects and argued that the permits should not be issued prior to the preparation of an EIS "fully evaluat[ing] the individual and cumulative impacts of the proposed research and weigh[ing] its contribution to cumulative effects on the stocks from combined mortality and serious injury resulting from fisheries-related mortality and native harvest." (AR 401 at 3, 25.) This is not the "heckl[ing]" defendants describe. (See Defs.' Opp'n at 28 (citing *N.C. v. FAA*, 957 F.2d 1125, 1133-34 (4th Cir. 1995) ("This circuit long ago rejected 'the suggestion that "controversial" must necessarily be equated with opposition.' Otherwise . . . [t]he outcome would be governed by a 'heckler's veto.'") (internal citations omitted)).) Moreover, in stating that the agency "share[d] [the Society's] concerns over the scope of the research on Steller sea lions" and would therefore "prepare an environmental impact statement . . . on the effects of scientific research on this species" (Barrett Decl. Ex. 3), Assistant Administrator Hogarth's June 27, 2005 letter itself evidences an appreciation of the degree of controversy surrounding the impact of the research on Steller sea lions. See *Friends of the Earth, Inc. v. United States Army Corps of Engineers*, 109 F.Supp. 2d 30, 43 (D.D.C. 2000) (concluding that an EIS must be prepared where the controversial nature of the proposed project's impact was apparent in comments from other

---

<sup>11</sup> While the MMC's preliminary comments were not included in the Administrative Record, defendants acknowledge that they should have been. (See Defs.' Opp'n to Pls.' Mot. to Supp. at 6.) Plaintiffs' Motion to Supplement the Administrative Record will therefore be granted with respect to these comments. See *Esch*, 876 F.2d at 991 (supplementation appropriate where the agency "considered evidence which it failed to include in the record").



agencies, the public, and defendant's own leadership). The highly controversial nature of the permits' effects is, in short, readily apparent from the record.

What does not appear is a "hard look" from the agency. In a rather flippant summation of the issue, the EA declares that "[t]here is no significant controversy regarding the effects of the proposed action on the human environment[,]" explaining that while "NMFS received comments from the public in opposition to the issuance of the proposed permits, the activities are similar to research conducted over the past two years during which time NMFS did not receive objections and there was no evidence of adverse population level impacts." (AR 406 at 58.) This language is entirely at odds with the EA's prior acknowledgment of a "substantive disagreement over the likely effects of . . . certain . . . research activities" and "controversy over the adequacy of NMFS [sic] finding of no significant impact in issuance of the previous Steller sea lion research permits." (*See id.* at 17.) No attempt is made to reconcile these statements. Moreover, as earlier discussed, the EA ignores the western population's PBR level, a central aspect of the debate. In light of this controversy, the agency has not "made a convincing case" that the impact of the authorized research will be insignificant. *See Cabinet Mountains Wilderness v. Peterson*, 685 F.2d 678, 682 (D.C. Cir. 1982).

#### **D. Uncertain Effects and Unknown Risks**

In determining the significance of a proposed action, an agency is also required to consider "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks." 40 C.F.R. § 1508.27(b)(5). Based on the record, there can be no doubt that NMFS authorized research where the effects were both uncertain and unknown. The EA, in fact, is replete with references to the uncertainty inherent in the program, recognizing that "[t]here have been no studies dedicated to documenting and assessing the

effects of research on Steller sea lion stocks or populations" and that "[t]he cumulative effects of various research activities on Steller sea lions, including the possibility of cumulative effects that may not become evident for some time, are uncertain."<sup>12</sup> (AR 406 at 120.) Given the EA's candid recognition of these uncertainties, defendants' contention that the agency took a "hard look" at the issue by considering available studies and adopting various measures to mitigate the research's impact must be rejected. *See Nat'l Parks & Conservation Assoc. v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) ("[T]he Parks Service's repeated generic statement that the effects are unknown does not constitute the requisite 'hard look' mandated by the statute if preparation of an EIS is to be avoided."). (See Defs.' Opp'n at 26, 29-30; Defs.' Rep. at 18.) In its concluding statement of findings, NMFS declares that:

The effects of the proposed action are not highly uncertain nor do they involve unique or unknown risks. While there was a low number of Steller sea lion mortalities incidental to the research

---

<sup>12</sup> *See also* AR 406 at 18 (noting that "there has been insufficient information collected since the 2002 EA to resolve all the information gaps identified in [its effects] analysis"); *id.* at 41 ("There have been no studies dedicated to documenting and assessing the effects of research on Steller sea lions or other marine mammals at a population level, nor on the synergistic or cumulative effects of various research activities and other human-related impacts on individual marine mammals or populations."); *id.* at 42 ("[A] lack of observable or otherwise detectable response to a research activity should not, in the absence of supporting documentation, be taken as a lack of effect."); *id.* ("The number of observed and reported mortalities may or may not represent the number of actual mortalities."); *id.* at 43 ("There is an increased risk of serious injury or mortality associated with some of the proposed research activities that are part of the Proposed Action . . . . For example, the proposed surgical implantation of transmitters has . . . an unknown risk of long-term effects on fitness and survival."); *id.* at 44 ("There is insufficient information to assess the likely duration or extent of ultimate impacts of the Proposed Action relative to the No Action" though "it is reasonable to assume ultimate effects of the Proposed Action would continue further in time than those of the No Action because the activities themselves would occur over a longer period."); *id.* at 52 ("The effects of research on the Steller sea lion population are uncertain, but some research techniques and activities are known to adversely affect individual animals[.]"); *id.* at 52-53 ("It is not known whether research activities themselves have had a significant adverse impact on the Steller sea lion population, or if the disturbance and incidental mortality associated with research activities have been a factor in the decline."); *id.* at 54 ("Given the number of permits and associated takes, repeated disturbance of individual sea lions must occur. It is difficult to assess the effects of such repeated, and potentially chronic disturbance.").

over the past two years, the total number was within that authorized by the permits and would not have a population level impact. Further, there is no evidence of an accelerated population decline as a result of research activities.

(*Id.* at 58.) This is a *non sequitur*, not reasoned analysis. In reaching this conclusion, the agency contradicts the EA's numerous citations to the action's uncertain effects and unknown risks; ignores numerous statements regarding the possibility of unobserved injuries and mortalities; offers no analysis regarding to the possibility of population-level impacts from an expanded research program; and makes no mention of the ameliorative measures relied upon here by defendants. Accordingly, in terms of the research's uncertain effects, the agency's case for insignificance is far from convincing. *See State of Idaho*, 35 F.3d at 596 ("Without the requisite hard look, we cannot determine whether [defendant] 'made a convincing case that the impact was insignificant[.]'").

#### **E. Cumulatively Significant Impacts**

The last of the factors relied upon by plaintiffs is cumulative significance -- "[w]hether the action is related to other actions with individually insignificant but cumulatively significant impacts." 40 C.F.R. § 1508.27(b)(7) ("Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts."); *see also id.* § 1508.7 ("'Cumulative impact' is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."). Plaintiffs contend that the cumulatively significant impact of the permitted research is evident, again, in its potential for incidental mortalities exceeding the western stock's PBR level and that the agency failed in its analysis of the issue by resting on "several pages of conclusory remarks

and summaries of future actions." (Pls.' Mem. at 24.) According to defendants, plaintiffs' have not met their burden of identifying potentially-significant cumulative impacts that the agency did not include in its discussion. (Defs.' Opp'n at 30.)

As in *Friends of the Earth*, "it is apparent that, while the [agency] dedicated nine or ten pages [of its assessment] . . . to cumulative impacts, the discussion provides no analysis" of the actions' combined effects. See 109 F.Supp. 2d at 42 ("All three EAs merely recite the history of development along the Mississippi coast and then conclude that the cumulative direct impacts 'have been minimal.' There is no actual analysis, only that conclusory statement.") (internal citation omitted); see also *Defenders of Wildlife v. Babbitt*, 130 F.Supp. 2d 121, 138 (D.D.C. 2001) (remanding an EIS "[b]ecause the discussion of cumulative impacts consists only of 'conclusory remarks [and] statements that do not equip a decisionmaker to make an informed decision about alternative courses of action, or a court to review the Secretary's reasoning'" (quoting *Natural Res. Def. Council, Inc. v. Hodel*, 865 F.2d 288, 298 (D.C. Cir. 1988)). While offering a "brief summary of the past, present, and future human-related activities affecting the marine mammals, particularly the Steller sea lion, within the action area" (AR 406 at 51-59), those activities are not analyzed in combination. See *Grand Canyon Trust*, 290 F.3d at 345 ("[A] meaningful cumulative impact analysis must identify . . . the overall impact that can be expected if the individual impacts are allowed to accumulate."); *Defenders of Wildlife*, 130 F.Supp. 2d at 138 ("While the section is entitled 'cumulative impacts,' there is no discussion of the incremental impact of this effect 'when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.'" (quoting 40 C.F.R. § 1508.7)).

Once again, NMFS's ultimate finding on the issue is revealing:

There are no individually insignificant but cumulatively significant impacts of the proposed action. While there are a low number of Steller sea lion mortalities incidental to the research, the total number was within that authorized by the permits. Further, there is no evidence of an accelerated population decline as a result of research activities. In addition, all permits would contain mitigation measures, including a requirement for the researchers to develop a research monitoring plan.

(*Id.* at 59.) Though the agency's preceding summary describes three categories of human activity that result in sea lion mortality -- subsistence harvests, commercial fishing, and scientific research -- its finding of "no . . . cumulatively significant impacts" is made without reference to non-research-related deaths. Moreover, in focusing on the impacts of previously-authorized research activities, the agency leaves unanswered the question of whether those actions would have a cumulatively significant impact on the environment when combined with the "incremental impact" of the expanded research program. *See* 40 C.F.R. § 1508.7; *id.* § 1508.27(b)(7). As NMFS did not fulfill its obligation to thoroughly consider the combined effects of human activity on the environment, it is not relevant whether plaintiffs have identified potential impacts that should have been included. *See City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142, 1161 (9th Cir. 1997) (rejecting defendants' contention that plaintiff had not met its burden of identifying an action the contested EIS "fail[ed] to consider" as the agency had "failed first" in failing to sufficiently detail the cumulative effects of existing projects).

#### **F. Conclusion**

In its haste, NMFS neglected to take a "hard look" at the relevant environmental issues and thereby failed to make a "convincing case" that the authorized research will not have a significant impact on the environment. *See Sierra Club*, 717 F.2d at 1413. The agency's failure is not surprising on this record. Since NMFS has decided, after the fact, to prepare an EIS that will address Steller sea lion research, and in light of the relationship between potential research-

related deaths and the western stock's PBR level, the substantial controversy regarding the research's effects, the unknown risks and uncertain effects stemming from the approved activities, and the possibility of a cumulatively significant impact on the environment, the Court concludes that "'significant' environmental impacts might result" from the issuance of the contested permits. *See id.* at 1415. As an EIS was therefore required "before the action [was] taken[.]" *see id.*, the Court will vacate the contested permits and remand the case to NMFS for preparation of an EIS.<sup>13</sup>

---

<sup>13</sup> Given the Court's conclusion that an EIS is required, it need not resolve the many arguments that plaintiffs raise regarding the sufficiency of defendants' EA. It nonetheless bears noting that plaintiffs' contention that defendants failed to give adequate consideration to potential alternatives to the proposed research appears to provide further justification for a remand. (*See* Pls.' Mem. at 25-26.) Although the portion of the EA regarding the "Proposed Action" and its alternatives describes five possibilities, only two -- the "Proposed Action" and "No Action alternative" -- were worthy of "detailed study" according to the agency. (AR 406 at 30.) The EA states that the possibility of a temporary moratorium on all Steller sea lion research was "not considered further because it would not allow collection of information on population distribution and abundance trends (such as that from aerial surveys) or vital rates" -- information important to the monitoring of the species. (*Id.* at 31.) The option of authorizing only nonintrusive research was similarly summarily rejected on the grounds that "permit holders and applicants . . . indicated it is important for them to conduct the intrusive activities to obtain information on the physiology, foraging behavior, health and reproductive status of individual sea lions." (*Id.* at 32.) Finally, the option of limiting most intrusive research to eastern Steller sea lions and surrogate species "was not considered further because various permit holders and applicants . . . indicated it is either not logistically feasible for them to conduct their activities with species or populations other than those they have requested" or "because the nature of the population decline ma[de] it important to conduct their investigations in the population experiencing the decline." (*Id.* at 33.)

Such a discussion of alternatives cannot satisfy the requirements of NEPA. In evaluating the environmental consequences of a proposed project, federal agencies are required to "study [and] develop . . . appropriate alternatives to recommended courses of action." 42 U.S.C. § 4332(2)(E); *see also* 40 C.F.R. § 1508.9(b). An agency's consideration of alternatives "must be more than a *pro forma*[ ] ritual. Considering environmental costs means seriously considering alternative actions to avoid them." *Southern Utah Wilderness Alliance v. Norton*, 237 F.Supp. 2d 48, 52 (D.D.C. 2002).

Serious consideration of alternatives was not undertaken here; rather defendants deferred to the views of permit holders, ignoring comments that challenged the sufficiency of the draft EA's alternatives section and indicated that one of the rejected options was both reasonable and less invasive. (*See* AR 406 at 31-33; AR 401 at 7-8 (Society's May 4, 2005 comments).) *See Oceana, Inc. v. Evans*, 384 F.Supp. 2d 203, 241 (D.D.C. 2005) ("[A]gencies have a duty to consider 'significant and viable alternatives' identified through public comments.") (citation

### III. ESA

Under Section 7(a)(2) of the Endangered Species Act, all federal agencies are required "to insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [any critical] habitat of such species[.]" 16 U.S.C. § 1536(a)(2). When an agency determines that its proposed action "may affect listed species or critical habitat[.]" it must engage in formal consultation with the federal resource agency responsible for the species at issue, which in the case of the Steller sea lion is NMFS. See 50 C.F.R. § 402.14(a). Consultation concludes with the issuance of a BO "detailing how the agency action affects the species or its critical habitat" and indicating whether the proposed action is likely to jeopardize the species' continued existence. 16 U.S.C. § 1536(b)(3)(A). When a jeopardy determination is reached, the BO may indicate any "reasonable and prudent" alternatives to the action under review. *Id.*; 50 C.F.R. § 402.14(h)(3). When it is determined that the action and "any resultant incidental take" of the species will not jeopardize the species, NMFS must provide a statement specifying "reasonable and prudent measures . . . necessary or appropriate to minimize such impact." 16 U.S.C. § 1536(b)(4); *see also id.* § 1532(19) ("The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."). After the initiation of a required consultation, Section 7(d) of the Act prohibits "any irreversible or irretrievable commitment of resources with respect omitted). As in *Southern Utah Wilderness Alliance*, the agency here failed in its duty to "study, develop, and describe appropriate alternatives to recommended course[] of action" by relying wholly on the "self-serving statements of the project applicants." 237 F.Supp. 2d at 53; *see also* 42 U.S.C. § 4332(2)(E); *Idaho v. ICC*, 35 F.3d 585, 596 (D.C. Cir. 1994) (agency may not defer to the judgment of other agencies and the licensee in evaluating environmental impact of an application to engage in salvage activities); *Illinois Commerce Comm'n v. ICC*, 848 F.2d 1246, 1258 (D.C. Cir. 1988) (An agency "may not delegate to parties . . . its own responsibility to independently investigate and assess the environmental impact of the proposal before it."). The deficiencies of the EA's alternatives discussion must be remedied in the agency's EIS.

to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate [Section 7(a)(2)]." *Id.* § 1536(d).

On May 24, 2005, NMFS's Office of Protected Resources issued a BO concluding that "the research program, as proposed, [was] not likely to jeopardize the continued existence of the endangered western population of Steller sea lions or the threatened eastern population of Steller sea lions." (AR 407 at 1.) Though research permits were issued shortly thereafter, NMFS subsequently concluded that it was appropriate to "revisit" the opinion in order to "remedy any internal inconsistencies in the effects analysis of the biological opinion," to "clarify the basis for its determination that the permitted activities would not reasonably be expected to appreciably reduce the species' likelihood of surviving and recovering in the wild[,]" and to "reconsider the cumulative effects of future state, tribal, local or private actions that are reasonably certain to occur in the action area." (Defs.' Opp'n Ex. 5 at 2 (Declaration of James H. Lecky, Director of the Office of Protected Resources).) The agency's revised BO was issued on March 3, 2006, nearly eight months after this suit was initiated. (*See* Defs.' Rep. Ex. 6 (Revised BO).) Once again, the 2006 BO concluded that the research program was unlikely to jeopardize the existence of either Steller sea lion population. (*Id.* at 59.)

Plaintiffs challenge the sufficiency of the agency's 2005 BO, asserting that it fails to consider both the effects of the proposed action in light of the environmental baseline and the cumulative impact of human activity on the species. (*See* Pls.' Mem. at 28-36.) In response to defendants' contention that their challenge has been mooted by the 2006 BO (Defs.' Rep. at 4), plaintiffs argue that the 2006 BO cannot serve as legal justification for the agency's issuance of the contested permits, which were premised on the finding of the 2005 BO. (Pls.' Surrep. at 5.)



To hold otherwise, plaintiffs contend, would endorse a practice by which agencies evade judicial review through a "cycle" of inadequate but "short-lived" BOs. (Pls.' Rep. at 28.)

Plaintiffs' concerns are legitimate. In the present case, NMFS authorized extensive research involving endangered and threatened populations of Steller sea lions on the basis of a BO it later characterized as both opaque and internally inconsistent. (See Defs.' Opp'n Ex. 5 at 2.) The agency's decision to "revisit" the opinion following the issuance of the permits is difficult to reconcile with its obligation "to insure that [the] action . . . [was] not likely to jeopardize the continued existence of any endangered species or threatened species . . . ." See 16 U.S.C. § 1536(a)(2). As a result of the Court's decision to vacate the contested permits, however, there is no reason to resolve the issue of whether the issuance of the 2006 BO mooted plaintiffs' arguments related to the defects in the 2005 BO. Even if NMFS determines, upon completing an EIS, that it is appropriate to reissue the permits in their present form, that action will not be premised on the 2005 BO challenged in plaintiffs' complaint. Accordingly, there is no reason to resolve plaintiffs' ESA claims.

#### **IV. MMPA**

Plaintiffs also contend that NMFS violated the MMPA by completing its environmental evaluation and issuing the contested permits without allowing the MMC to provide final comments on the action, and by failing to analyze the permit applications in light of both the Steller sea lions' PBR levels and the availability of less invasive research methods. (Pls.' Mem. at 37-38.) Since NMFS will have to prepare an EIS, it will have opportunity to consider, among other things, the MMC's comments, the populations' PBR levels, and available alternatives to the proposed research activities, and therefore, there is also no need to decide plaintiffs' MMPA claims.

## CONCLUSION

For the foregoing reasons, the Court will grant plaintiffs' Motion for Summary Judgment on the basis that defendants have failed to comply with NEPA by not preparing an EIS, vacate the contested permits and remand the case to the agency for preparation of an EIS.

s/  
ELLEN SEGAL HUVELLE  
United States District Judge

Date: May 26, 2006

Dated: June 9, 2005.  
Stephen L. Leathery,  
Chief, Permits, Conservation and Education  
Division, Office of Protected Resources,  
National Marine Fisheries Service.  
[FR Doc. 05-11836 Filed 6-15-05; 8:45 am]  
BILLING CODE 3510-22-S

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric  
Administration**

[I.D. 060305A]

**Marine Mammals; File Nos. 782-1768,  
358-1769, 715-1784, 434-1669, 1010-  
1641, and 881-1668**

**AGENCY:** National Marine Fisheries  
Service (NMFS), National Oceanic and  
Atmospheric Administration (NOAA),  
Commerce.

**ACTION:** Issuance of permits and permit  
amendments.

**SUMMARY:** Notice is hereby given that  
the following individuals and  
institutions have been issued a permit  
or permit amendment to conduct  
research on Steller sea lions  
(*Eumetopias jubatus*): the National  
Marine Mammal Laboratory, Alaska  
Fisheries Science Center, Seattle, WA  
(NMML: File No. 782-1768); the Alaska  
Department of Fish and Game,  
Anchorage, AK (ADF&G: File No. 358-  
1769); the North Pacific Universities  
Marine Mammal Research Consortium,  
University of British Columbia,  
Vancouver, B.C. (NPUMMRC: File No.  
715-1784); the Oregon Department of  
Fish and Wildlife, Corvallis, OR  
(ODFW; File No. 434-1669); the  
Aleutians East Borough, Juneau, AK  
(AEB: File No. 1010-1641); and the  
Alaska SeaLife Center, Seward, AK  
(ASLC: File No. 881-1668).

**ADDRESSES:** The permits and related  
documents are available for review  
upon written request or by appointment  
in the following offices:

Permits, Conservation and Education  
Division, Office of Protected Resources,  
NMFS, 1315 East-West Highway, Room  
13705, Silver Spring, MD 20910; phone  
(301) 713-2289; fax (301) 427-2521;

Northwest Region, NMFS, 7600 Sand  
Point Way NE, BIN C15700, Bldg. 1,  
Seattle, WA 98115-0700; phone (206)  
526-6150; fax (206) 526-6426; and  
Alaska Region, NMFS, P.O. Box  
21668, Juneau, AK 99802-1668; phone  
(907) 586-7221; fax (907) 586-7249.

**FOR FURTHER INFORMATION CONTACT:**  
Tammy Adams or Amy Sloan, (301)  
713-2289.

**SUPPLEMENTARY INFORMATION:** On April  
4, 2005, notice was published in the

**Federal Register** (70 FR 17072) that  
requests for permits and permit  
amendments to conduct research on  
Steller sea lions had been submitted by  
the above-named individuals and  
institutions. The requested permits and  
amendments have been issued under  
the authority of the Marine Mammal  
Protection Act of 1972, as amended (16  
U.S.C. 1361 *et seq.*), the Regulations  
Governing the Taking and Importing of  
Marine Mammals (50 CFR part 216), the  
Endangered Species Act of 1973, as  
amended (ESA; 16 U.S.C. 1531 *et seq.*),  
and the regulations governing the  
taking, importing, and exporting of  
endangered and threatened species (50  
CFR parts 222-226).

Permit No. 782-1768 has been issued  
to NMML to allow them to conduct  
aerial surveys and ground counts as  
well as capture, sample, and mark  
Steller sea lions. The permit is valid for  
five years from the date of issuance and  
allows a limited number of sea lion  
mortalities incidental to the research.

Permit No. 358-1769 has been issued  
to ADF&G to allow them to conduct  
aerial surveys and ground counts as  
well as capture, sample, and mark  
Steller sea lions. The permit is valid for  
five years from the date of issuance and  
allows a limited number of sea lion  
mortalities incidental to the research.

Permit No. 715-1784 has been issued  
to NPUMMRC to allow them to collect  
data on sea lion distribution and diet  
compositions through aerial surveys of  
sea lion rookeries and haul outs in  
Southeast Alaska; collection of scat from  
rookeries and haul outs in Southeast  
Alaska; conducting behavioral  
observations of sea lions on rookeries,  
haul outs and tagged sea lions at sea;  
and mortality incidental to research.  
The permit is valid for five years from  
the date of issuance.

Permit No. 434-1669, issued to  
ODFW on November 12, 2002 (67 FR  
69724) has been amended to extend the  
duration of the permit for three years,  
incorporate a study on the effects of hot-  
brands, and allow an increase in the  
number of sea lions harassed annually  
during research.

Permit No. 1010-1641, issued to AEB  
on November 12, 2002 (67 FR 69724),  
has been amended to extend the  
duration of the permit for three years  
and increase the number of sea lions  
that may be harassed annually during  
research.

Permit No. 881-1668, issued to the  
ASLC on November 12, 2002 (67 FR  
69724), has been amended to extend the  
duration of the permit, modify some of  
the study objectives, change some of the  
study methods, and increase the  
numbers of Steller sea lions that may be

captured, harassed, or killed incidental  
to the research.

In compliance with the National  
Environmental Policy Act of 1969 (42  
U.S.C. 4321 *et seq.*), an environmental  
assessment was prepared analyzing the  
effects of the permitted activities. After  
a Finding of No Significant Impact, the  
determination was made that it was not  
necessary to prepare an environmental  
impact statement.

Issuance of these permits and  
amendments, as required by the ESA,  
was based on a finding that such  
permits and amendments: (1) were  
applied for in good faith; (2) will not  
operate to the disadvantage of such  
endangered species; and (3) are  
consistent with the purposes and  
policies set forth in section 2 of the  
ESA.

Dated: June 8, 2005.  
Stephen L. Leathery,  
Chief, Permits, Conservation and Education  
Division, Office of Protected Resources,  
National Marine Fisheries Service.  
[FR Doc. 05-11838 Filed 6-15-05; 8:45 am]  
BILLING CODE 3510-22-S

**DEPARTMENT OF DEFENSE**

**Office of the Secretary**

**Submission for OMB Review;  
Comment Request**

**ACTION:** Notice.

The Department of Defense has  
submitted to OMB for clearance, the  
following proposal for collection of  
information under the provisions of the  
Paperwork Reduction Act (44 U.S.C.  
Chapter 35).

**DATES:** Consideration will be given to all  
comments received by July 18, 2005.

**Title, Form, and OMB Number:**  
Request for Reference; DD Form 370;  
OMB Control Number 0704-0167.

**Type of Request:** Extension.

**Number of Respondents:** 70,000.

**Responses Per Respondent:** 1.

**Annual Responses:** 70,000.

**Average Burden Per Response:** .167  
hours (10 minutes).

**Annual Burden Hours:** 11,690.

**Needs and Uses:** Title 10 USC 504,  
505, 508, and 12102, establishes  
minimum standards for enlistment into  
the Armed Forces. This information  
collection is for reference information  
on individuals applying for enlistment  
in the Armed Forces of the United  
States who require a waiver. The form  
associated with this information  
collection, DD 370, "Request for  
Reference," is used by recruiters to  
obtain reference information on

FRANK H. MURKOWSKI  
GOVERNOR  
GOVERNOR@GOV.STATE.AK.US



STATE OF ALASKA  
OFFICE OF THE GOVERNOR  
JUNEAU  
May 24, 2006

P.O. Box 110001  
JUNEAU, ALASKA 99811-0001  
(907) 465-3500  
FAX (907) 465-3532  
WWW.GOV.STATE.AK.US

Ms. Kaja Brix  
Assistant Regional Administrator  
Protected Resources Division  
National Marine Fishery Service  
P.O. Box 21668  
Juneau, AK 99802-1668

Dear Ms. Brix:

The State of Alaska provides the following information in response to your solicitation for new information relative to the population of beluga whales in Cook Inlet. We believe the information we are providing will be useful in your status review of this population of whales.

The State of Alaska does not believe the Cook Inlet population of beluga whales should be listed as a threatened or endangered species under the Endangered Species Act (ESA) at this time. The only known human activity that affected this population and caused its decline, subsistence harvest, was effectively controlled in 1999. The annual harvest was reduced from an average of 67 whales per year from 1993 to 1998, to about one per year for the past six years.

The annual population estimates conducted by the National Marine Fisheries Service (NMFS) since 1993 are reliable and unbiased. We agree with NMFS that the censuses indicate it is likely the population declined significantly from 1993 to 1998 due to excessive harvest. However, the annual population estimates provide only weak evidence that the population has continued to decline since the excessive harvest was curtailed in 1999. Demographic recovery of the population from the sizeable harvests of the past may be slow. There is enough variation in the population data that the statistical reliability of the slight downward population trend since 1999 is low. We suggest that several more annual population estimates be collected prior to making a decision on this population's status under the Endangered Species Act.

There is no scientific evidence that any human activity, other than harvest by humans, has had an impact on this population. The Trustees for Alaska speculated, in their recent petition to list this population as endangered, that numerous human activities pose a threat to their continued

Ms. Kaja Brix  
May 24, 2006  
Page 2

existence. The Trustee petition voices concerns about water contamination due to oil and gas activities or sewage discharge, vessel traffic, fisheries, food stress, and disease. But they fail to cite a single scientific article that directly links the population decline to any of these activities. That is because there is no scientific evidence that any natural or man-made factors threaten the continued existence of Cook Inlet beluga whales. The only anthropogenic factor known to have contributed (hunting) to the decline has been greatly reduced. We suggest that research be pursued in the near future to obtain information needed to assess what factors are impeding recovery and that any decision on listing as an endangered species be delayed until such research is completed.

#### Water Contamination

The Trustees for Alaska have suggested that water contamination from offshore drilling for oil and gas in the Cook Inlet or disposal of treated sewage may have harmful effects on the beluga whale population. However, there is no scientific evidence to support this contention. Cook Inlet beluga whales have been tested for toxins, and their meat has been found to be among the least contaminated of all Alaskan beluga whale populations. Oil and gas activities have been ongoing in Cook Inlet for the past forty-five years, with no credible evidence of any detrimental effect on beluga whales.

#### The Effect of Disease, Predation, or Dispersal

Disease does not appear to be a significant factor in the decline of the Cook Inlet beluga whale population. There is no scientific evidence that disease has become more prevalent in recent years or that it is a factor threatening the continued existence of Cook Inlet beluga whales.

Killer whales sometimes prey on beluga whales and could significantly impact the population in Cook Inlet. Killer whales are rarely seen in upper Cook Inlet, so beluga whales probably do not encounter them frequently during the summer. However, the Cook Inlet beluga whale population's distribution is not well known during non-summer months, and it is possible they may range into areas where killer whales are more common. There is no indication that interactions between Cook Inlet beluga whales and killer whales have increased or decreased in recent years.

Ms. Kaja Brix  
May 24, 2006  
Page 3

Commercial Fishing

In some areas, such as Bristol Bay, beluga whales have become entangled in gillnets and drowned. This is not a common occurrence and has not been documented in Cook Inlet since 1983. During 1990-2005, no entanglements of beluga whales were reported in either the logbook or self-reports by fishers in the Cook Inlet salmon set net and drift gillnet fisheries. Fisheries using other gear types do not take beluga whales. The abundance of salmon and other forage resources remains high. There is no scientific evidence to even suggest that food stress is a concern.

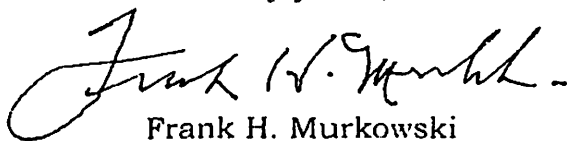
Stranding

Beluga whales have an unfortunate tendency to become stranded on mudflats in Cook Inlet. In June 1994, 190 whales were stranded at the mouth of the Susitna River. The animals floated on the next high tide, and it is not known if any died. In summer 1999, about 60 whales were stranded in the upper inlet, and six dead animals were found during the next few days. The cause or causes for stranding are unknown—it could simply be a risk factor associated with feeding in a shallow region with extreme tidal ranges. There is no evidence that the rate of stranding, or stranding mortality, has increased in recent years.

The Marine Mammal Protection Act (MMPA) provides adequate protection for the population at this time. NMFS has ample authority under the MMPA to restrict harvest of beluga whales in Cook Inlet.

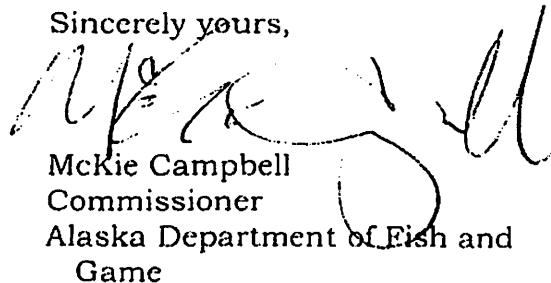
Because no other human activity has been shown to have an impact on the population, the MMPA provides ample protection for this population, and listing, if accompanied by designation of critical habitat areas could have serious economic consequences. We recommend the species not be listed under the ESA. Congress has advised federal agencies to consider Distinct Population Segments (DPS) under the ESA sparingly (Senate Report 151, 96<sup>th</sup> Congress, 1<sup>st</sup> Session). I strongly believe this advice should apply to the beluga whales in Cook Inlet.

Sincerely yours,



Frank H. Murkowski  
Governor

Sincerely yours,



McKie Campbell  
Commissioner  
Alaska Department of Fish and  
Game

Ms. Kaja Brix  
May 24, 2006  
Page 4

cc: The Honorable Ted Stevens, U.S. Senator  
The Honorable Lisa Murkowski, U.S. Senator  
The Honorable Don Young, U.S. Representative  
John Katz, Director State/Federal Relations and Special Counsel, Alaska  
Office of the Governor



# RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

May 30, 2006

Ms. Kaja Brix  
National Marine Fisheries Service  
Protected Resources Division  
709 W. 9<sup>th</sup> Street  
PO Box 21668  
Juneau, Alaska 99802-1668  
Attn: Ellen Walsh

Re: Status Review of the Cook Inlet Beluga Whale under the Endangered Species Act

Dear Ms. Brix:

Thank you for the opportunity to submit comments on the Status Review of the Cook Inlet Beluga Whale under the Endangered Species Act (ESA).

The Resource Development Council (RDC) is a statewide private economic development organization with the mission to grow Alaska's economy through responsible resource development. RDC's membership encompasses all of Alaska's basic industries — oil and gas, tourism, fisheries, mining and timber. Our membership also includes construction companies, labor organizations, Native corporations, local communities and a wide variety of industry support firms.

RDC members who live, recreate, and work in and around Cook Inlet are committed to the recovery of the beluga whale. Over the years, we have worked closely with our members and the National Marine Fisheries Service (NMFS) on a number of initiatives to assist in the recovery of the stock. In addition, we intervened, on behalf of NMFS in a lawsuit less than 5 years ago when the agency determined the Cook Inlet belugas should be listed as depleted under the Marine Mammal Protection Act (MMPA). Together with NMFS, we prevailed in that case.

NMFS acknowledged the sole cause for the decline of the Cook Inlet Beluga Whale was the subsistence harvest and a co-management agreement was developed to limit the subsistence take of belugas to one or two animals per year. Following the court decision, RDC participated in the comment process for the beluga conservation plan and have been awaiting its release. As we indicated in our comments of June 27, 2005 we continue to believe that given the beluga's life history, gestation period, age to sexual maturity, and the establishment of the co-management agreement, it is inappropriate for NMFS to so quickly abandon the conservation measures already in place under the MMPA. We therefore oppose listing the stock of Cook Inlet beluga whales as threatened or endangered under the ESA. Such a listing, so soon after NMFS' original designation under MMPA and subsequent court approval, will only lead to additional burden on economic and community development activities in and around Cook Inlet with no clear, corresponding benefit to the stock. We strongly encourage NMFS to maintain the listing under the MMPA.

Founded 1975

**Executive Director**  
Thaddeus J. Owens

**2005-2006 Executive Committee**

John Shively, President  
Rick Rogers, Sr. Vice President  
Wendy Lindskoog, Vice President  
Thomas Maloney, Secretary  
Stephanie Madsen, Treasurer

Patty Bielawski  
Allen Bingham  
Marilyn Crockett  
Steve Denton  
Jeffrey Y. Foley  
Carol Fraser

Paul S. Glavinovich

Mark Hanley

Joe Marushack

Ron McPheters

Richard J. Owen

Thomas Panamaroff

Lisa M. Parker

Keith Sanders

Robert B. Stiles

Scott L. Thorson

Andrew Van Chau

**Directors**

Irene A. Anderson

Sharon Anderson

Tim Arnold

John A. Barnes

Mark Begich

Jason Bergerson

Bruce Botelho

Rhonda Boyles

Frank M. Brown

Al Burch

Patrick Carter

Richard Cattanaach

James L. Cloud

Stephen M. Connelly

Jeffry J. Cook

Bert Cottle

Robert Cox

Paula Easley

Stanley T. Foo

Charles Greene

John K. Handeland

Karl Hanneman

Steve Hansen

Rick Harris

Larry Hartig

Teresa Imm

Anthony M. Izzo

David Jensen

Charles W. Johnson

Diane Keller

Frank V. Kelty

Thomas G. Krzewinski

Francis LaChapelle

Jim Laiti

Thomas Lovas

David L. Matthews

William Harry McDonald

William McLaughlin

James Mery

Jim Palmer

William E. Pierce

Debbie Reinwand

Elizabeth Rensch

Thyes J. Shaub

Lorna Shaw

Kenneth H. Sheffield, Jr.

Keith N. Silver

Joseph Sprague

Jeanine St. John

Lee Stoops

John L. Sturgeon

Jim Taro

Greg Thies

Eric P. Yould

**Ex-Officio Members**

Senator Ted Stevens

Senator Lisa Murkowski

Congressman Don Young

Governor Frank Murkowski



The recent NMFS report from the August 2005 aerial survey reports, "Several Natives approached belugas near Big and Little Susitna Rivers where whales were later observed by the aerial crew; unusually high numbers of juveniles and calves were present with the white adult belugas." It is obvious that juvenile belugas, which match perfectly with the color of Cook Inlet waters, are impossible to see and subsequently count from an airplane. These animals will turn white and will be easier to count when they reach 5-8 years old. At that point, they will also be closer to the age of sexual maturity and subsequently be able to help grow the population. The report also states, "The counts from August 2005 were higher than uncorrected estimates from June during the past seven years." Given these positive trends, a new status review seems completely unwarranted. However, the August raw counts did not lead to a larger population estimate. RDC believes the methodology for converting the raw aerial counts and the accompanying video footage of the whales to the final population estimate is poor at best. They are derived in part from methodologies used in Bristol Bay where there is significantly higher clarity to the water column. In fact, a study recently funded by Chevron to identify unique individuals by fluke patterns showed more animals in one confined area than NMFS says exist in the entire Cook Inlet. Clearly, the counting methodologies need to be revised.

The Agency's request for information in the Federal Register is a testament to its lack of knowledge about the whales. RDC remains disappointed at the level of research dollars that have been requested by NMFS to study the Cook Inlet beluga whales since their listing under the MMPA. On more than one occasion, RDC and our members have offered to assist the agency in securing additional federal and corporate funds to conduct such studies. Unfortunately, the only government-funded research being done on the Cook Inlet belugas is an annual survey in June along with a single August survey. This lack of due diligence is troubling. RDC has queried NMFS as to why additional satellite tracking has not been done since listing under the MMPA. The responses have been unacceptable, including lack of funding, staff time, and concern for the well-being of the animals. While such concerns are admirable, satellite tracking of cetaceans is a scientifically acceptable, unobtrusive, relatively inexpensive and not incredibly time intensive method to provide a better understanding of the range, demographic movements, and trends in foraging habits. We encourage NMFS to aggressively move forward with such research.

Regardless of the outcome of this status review, RDC expects more research work from the Agency in the future. RDC expects all available data, including this year's June survey, will be used in making the status determination. RDC endorses the studies, funded by industry, which will be submitted for the record by the funding organizations. These include studies by Chevron, KABATA, the Port of Anchorage, and DRven Corporation. Millions of dollars of private funds are being spent annually by the private sector to better understand the role of beluga whales in the Inlet. We encourage the Agency to follow the wording of the ESA to use "the best scientific and commercial data available" in making this decision and not unilaterally discount these studies. (Emphasis added)

#### **Specific comments with respect to NMFS' request for information**

*(1) Current known range of the Cook Inlet beluga whale, with a particular focus on current and historical habitat use; (2) demographic movements; (3) trends in foraging habits and seasonal prey abundance*

As defined in the ESA, the term "endangered species" means any species in danger of extinction throughout all or a significant portion of its range. Unilaterally stating in the federal register that "this group is a distinct population segment and thus, a separate species as defined by the ESA" is wrong. Beluga whales exist throughout Alaskan Coastal waters and by no means are they in danger of extinction throughout all or a significant portion of their range as defined by the ESA.

In fact, questions exist to this day as to whether this stock is indeed a distinct population segment (DPS.) There is little to no evidence showing where these animals reside in the winter, and hence members from this stock may even intermix with Bristol Bay beluga whales. If indeed they are a DPS, it is important to remind the agency the ESA states,

“The term “species” includes any subspecies of fish or wild-life or plants, and any distinct population segment of any species or vertebrate fish or wildlife which interbreeds when mature.”

If these animals are shown to interbreed with the Bristol Bay population, then this population should not be listed as a DPS.

*(3) trends in foraging habits and seasonal prey abundance*

The conservation plan specifically states, “Whether the escapement into these rivers, having passed the gauntlet of the commercial fisheries, is sufficient for the well being of the CI beluga whales is unknown. The amount of fish required to sustain this population is unknown.” The Port, KABATA, and DRven are studying seasonal prey abundance and we encourage the agency to take this data into account during the status review. We continue to urge NMFS to complete additional research to determine prey abundance and to not make significant policy recommendations without any supporting data. Until the agency is able to determine the amount of fish necessary to sustain this population, development activities should not be limited.

*(4) trends in environmental contamination*

As mentioned in the Draft Conservation Plan, Cook Inlet belugas have much lower concentrations of PCBs and DDT than other stocks found in Alaska, Greenland, Arctic Canada and the Saint Lawrence estuary in eastern Canada. In fact, Becker et al. (2000) compared tissue levels of total PCBs, total DDT, chlordane compounds, hexachlorobenzene, dieldrin, mirex, toxaphene, and hexachlorocyclohexene and found the Cook Inlet beluga whales had the lowest concentrations of all. In addition, hepatic concentrations of cadmium and mercury were lower in the Cook Inlet population as compared to the Arctic Alaska populations. Unfortunately, the draft conservation plan discounts these extremely positive trends in environmental contamination by stating “the effects of lower concentrations of PCBs and chlorinated pesticides on animal health may be of less significance for the Cook Inlet animals than for other beluga whale populations.” Using contaminant levels as indicators of health when convenient is not sound science.

*(5) contaminant burdens in prey species, especially salmonids and eulachon*

Commercial, sports, and subsistence fisheries have long taken salmon and eulachon from Cook Inlet. Contaminant burdens have never been an issue. In fact, wild Alaskan salmon is considered the best in the world.

*(6) impacts caused by human recreational activities (e.g., boating)*

Human recreational activities such as boating or jet skiing may have a minimal impact on the whales due to their high frequency noise which is more detectable to beluga whales. However, we do not believe this is a serious threat to the Cook Inlet belugas. There is absolutely no documented evidence of harm to the whales from recreational boating.

*(7) current and planned activities and their possible impacts to the Cook Inlet beluga whale (e.g., habitat modification)*

If indeed the population of Cook Inlet belugas was 1,300 animals in 1979, given the life history of a beluga, most of these whales would have lived most if not all of their lives with oil and gas activity, NPDES discharges, commercial fishing, vessel traffic, coastal development, etc. The whales have co-existed with all of these activities without significant impact for nearly half a century, and it wasn't until pressure from the subsistence harvest that their numbers dramatically declined.

To that end, there are many activities planned for Cook Inlet. Each of these may have a small impact on some beluga habitat. However, like all animals, belugas have and will continue to adapt and will ultimately not be adversely impacted by these activities. It is important to note these development activities will not occur in a regulatory vacuum, as they are strictly regulated under numerous state and federal environmental laws. Belugas have been and will continue to be an important part of state, federal, and local oversight and the associated public process.

*(8) efforts to protect the Cook Inlet beluga whale or improve its habitat*

Currently, companies operating in the Inlet are working to protect belugas. Many projects staff biologists or whaling captains to serve as observers for belugas. If one is spotted, the operations are stopped. These actions are already in place and switching to an ESA listing will provide no added benefits to the recovery of the whales. In addition, companies are currently spending upwards of \$10 million to do research on beluga movement, habitat, and life history. Much of this funding may go away if a listing occurs and critical habitat is designated as companies may choose to invest elsewhere.

As listed in the Federal Register the inadequacy of existing regulatory mechanisms can be reason for listing of a species under the act. The restrictions and mitigation measures in place for activities including the Anchorage Port Expansion, seismic activity completed by Veritas, piledriving at Point MacKenzie, and many others clearly indicate adequate regulatory mechanisms are in place for this stock of belugas.

*(9) non-human factors that may have contributed to its decline (i.e., disease, biotoxins, climatic or oceanographic regime shifts)*

RDC continues to object to the NMFS' defined carrying capacity of 1,300 animals and we continue to question the recovery goal of 780 animals. The carrying capacity of the Cook Inlet for beluga whales has likely declined. A potential cause for this decline in carrying capacity may be the constant release of fine silts from glaciers, filling the Inlet up at a steady rate. This is documented by the increased frequency of dredging that occurs. Thus, it is likely the Cook Inlet is able to support fewer animals than may have historically been found in the Inlet. In addition, Pacific Decadal Oscillation combined with increased orca predation on many large marine mammals throughout Alaskan waters may also have an impact on the population.

*(10) industry effects from oil and gas, municipal wastewater, commercial fishing, commercial shipping, etc., and associated noise.*

We are concerned with the implication that there are "industry effects from oil and gas, municipal wastewater, commercial fishing, commercial shipping, etc. and associated noise." Prior to the large subsistence harvest which decimated the population, this stock of beluga whales co-existed with all of the aforementioned activities. NMFS has no documented evidence that these activities have adversely affected the belugas.

The effects from economic activities in the Cook Inlet are minimal. In fact, according to the October 19, 1999 Federal Register, NMFS reviewed "existing information on fish runs, oil and gas activities, sewage problems,

and other sources of contaminants"...and found ... "the existing information suggests that beluga are not stressed by anthropogenic factors in Cook Inlet." NMFS has no documented reason to believe this situation does not remain true today.

Unfortunately, in several instances throughout the draft conservation plan, NMFS offers mitigation measures "where development has impacted the beluga population." Stating as fact that development has significantly impacted the beluga population or recovery is inaccurate. There is a substantial legal and administrative track record with respect to the Cook Inlet belugas. NMFS must use sound, peer-reviewed science in determining if there is any effect from these activities, on either the initial decline or the continued recovery.

### **Additional Points**

As mentioned in our letter of May 19, 2006, many of our members are confused regarding the overlap of the NMFS status review and the formal petition filed by the Trustees for Alaska. NMFS must clarify what the public is being asked to comment on at this point in the process — the NMFS' initiated status review or the Trustees petition. We continue to encourage the agency to synchronize the two processes together for clarity.

RDC remains frustrated at the timeline NMFS has established for the completion of its conservation plan. It has been over two years since the draft conservation plan was initially released and to date, it is still not finished. There must be a priority given to completion of this document. To that end, RDC wishes to reiterate that as currently drafted, the plan's recommendations will not lead to the recovery of the Cook Inlet Beluga. Instead, the plan is likely to adversely impact a number of economic and recreational activities in and around Cook Inlet without a corresponding benefit to the beluga whale.

The ESA requires the consideration of the economic impact of critical habitat designation. If indeed the Agency does determine listing is necessary, the Secretary has the authority to exclude areas from critical habitat "if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned." We encourage the exclusion of the entire Cook Inlet as it is clear with the mitigation and regulatory measures already in place under the MMPA, the extinction of the species will not likely occur.

As part of our comments, we reference the May 24, 2006 Federal Register decision not to list the California spotted owl under the ESA. In its decision, the agency stated, "We found that the petitioned action was not warranted because the overall magnitude of the threats to the species did not rise to the level requiring protection under the Act." The record of decision states the "best-available data do not show statistically significant declines." According to NMFS, the Cook Inlet Beluga Whale have not shown statistically significant declines either. The spotted owl decision concludes, "Impacts...from activities are not at a scale, magnitude, or intensity that warrants listing and that the overall magnitude of threats...does not rise to the level that requires the protections of the Act." We encourage NMFS to consider this logic when making its decision.

Finally, RDC is concerned that listing the Cook Inlet beluga whales under the ESA is a foregone conclusion. Meetings and discussions with members of NMFS' Anchorage staff indicate the strong likelihood of listing these animals under the ESA. The public process exists for a reason.

Thus, at the present time, we emphatically oppose listing the stock of Cook Inlet beluga whales as threatened or endangered under the ESA. Such a listing, so soon after NMFS' original designation under MMPA will only lead to additional burden on economic and community development activities in and around Cook Inlet with no clear, corresponding benefit to the stock. We strongly encourage NMFS to maintain the listing under the MMPA.

Thank you for the opportunity to comment.

Sincerely,

RESOURCE DEVELOPMENT COUNCIL  
for Alaska, Inc.

A handwritten signature in black ink, appearing to read "Jason Brune", with a long horizontal flourish extending to the right.

Jason Brune  
Projects Coordinator



**School of Natural Resources and  
Agricultural Sciences**  
Agricultural & Forestry Experiment Station  
University of Alaska Fairbanks  
533 East Fireweed Avenue  
Palmer, Alaska 99645-6629  
PHONE: (907) 746-9450 • FAX: (907) 746-2677



12 May 2006

Kaja Brix  
Assistant Regional Administrator  
Protected Resources Division  
National Marine Fisheries Service  
P.O. Box 21668  
Juneau, Alaska 99802-1668

Dear Ms Brix,

I am providing comments and information regarding the status review and Endangered Species Act (ESA) consideration of the beluga whales in Cook Inlet, Alaska by the National Marine Fisheries Service (NMFS, Federal Register, 24 March 2006, Vol. 71, No. 57, pages 14836-14837). The listing of beluga whales in Cook Inlet under the ESA is inappropriate because scientific information was used subjectively to designate the subpopulation of beluga whales in Cook Inlet as a distinct population segment (DPS). I believe this subpopulation of beluga whales is not a legitimate "species" for ESA consideration.

I have become aware of the extensive designation of vague and subjectively designated subspecies and distinct population segments (DPS) as species under the ESA. I enclose several of my papers and those of others on this topic for your careful consideration. In Alaska we are aware of the vague designation of the Queen Charlotte goshawk subspecies in southeast Alaska that is being considered for ESA listing. There are other cases of subjective or inaccurate designation of subspecies that have been listed under the ESA. This includes the northern spotted owl, coastal California gnatcatcher, and Preble's meadow jumping mouse and others (Cronin et al. 1997, Zink et al. 2000, Zink 2004, Ramey et al. 2005).

Like subspecies, DPS have also been subjectively designated using vague criteria. I have enclosed several published and unpublished papers on this topic. Most relevant to the case of beluga whales is the information in a letter I wrote to Congressman R. Pombo and Assistant Secretary of the Interior C. Manson (enclosed). In this letter and the papers cited, the subjective designations of DPS are well documented. Note in particular the subjective use of genetic data by the U.S. Fish and Wildlife Service (FWS) in designating the southwest Alaska stock of sea otters as a DPS (Federal Register 9 August 2005, Vol. 70, No. 152, pages 46366-46386). In this case I co-authored a scientific report (enclosed) on sea otter genetics that the FWS used to declare the southwest Alaska stock genetically discrete. The FWS selectively used the information in this report, and ignored the qualifications that the limited genetic differentiation of the sea otter stocks was not

absolute, or necessarily meaningful. Please read my assessment of the sea otter DPS designation (attached to the letter to Congressman R. Pombo and Assistant Secretary of the Interior Manson) carefully.

I believe that the DPS designation of the beluga whale subpopulation in Cook Inlet has the same weaknesses as the sea otter designation. Indeed, the eastern and western Alaska stocks of Steller's sea lions, and many of the Pacific salmon stocks in Washington, Oregon, and California are also questionable DPS that colleagues and I are reassessing.

In the case of beluga whales, there are simple mitochondrial DNA haplotype frequency differences between the subpopulations in Cook Inlet and elsewhere in Alaska (O'Corry-Crowe et al. 1997, 2002). Several haplotypes are even shared by the whales in Cook Inlet and those in Bristol Bay, Norton Sound, the eastern Chukchi Sea, and the eastern Beaufort Sea, suggesting a low level of female-mediated gene flow or recent common ancestry, not long term genetic isolation and divergence. Such genetic differences are typical of geographically separate subpopulations, and do not necessarily warrant special management consideration (see my enclosed papers, Cronin 1993, 2003, 2006 for an assessment of this topic). I have requested additional genetic data on beluga whales from NMFS, and I am ready to analyze whatever is available. Note that a paper written by a NMFS biologist refers to analysis of microsatellite DNA (O'Corry-Crowe and Lowry 1997, Table 2). These data, whether published or not, are needed for use of all the available science in assessing the relationships of beluga whale subpopulations. In this regard it is noteworthy that the initial mtDNA data showing structure of the Steller's sea lion stocks was followed by microsatellite DNA data showing considerable genetic homogeneity between the stocks (Trujillo et al. 2004). It is clear that many DPS are being designated prematurely without full consideration of the scientific information in light of the relevant scientific literature.

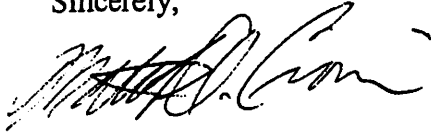
Please note, the Federal Register announcement of the status review refers to the whales as the "Cook Inlet beluga whale". This gives the subpopulation a proper name, as if it were an actual taxon. This subtle bias supporting the DPS designation suggests the whales are somehow special, rather than a simple geographic subpopulation. The proper scientific terminology would be to call them "the beluga whales in Cook Inlet" or the "subpopulation of beluga whales in Cook Inlet". This is not trivial semantics. The Public should be presented scientifically sound terminology, not subtle phraseology. I suggest that you institute this wording change in all future science and policy documents.

Regardless of the genetic relationships of subpopulations of beluga whales, the criteria for identifying DPS are so broad that almost any geographically separate subpopulation can be designated as a DPS (Federal Register 7 February 1996, Vol. 61, No. 26, pages 4722-4725). This problem can be mitigated by heeding Congress' order to list DPS "sparingly" (Senate Report 151, 96<sup>th</sup> Congress, 1<sup>st</sup> Session). In this regard, it is clear to me that the primary management question in designating a DPS for ESA consideration is whether it is critical to the survival of the entire species. The inclusion of DPS was not intended to allow listing of any local population for which an agency or private group had

concerns. One subpopulation of beluga whales is not critical to the survival of the entire species that is otherwise abundant.

I support proper management of the subpopulation of beluga whales in Cook Inlet without resorting to ESA listing. I offer assistance as a scientist to implement sound management of beluga whales in Cook Inlet. Thank you for your consideration.

Sincerely,



Matthew A. Cronin, Ph.D.  
Research Associate Professor

Enclosures

**Literature cited**

- Cronin, M.A. 1993. Mitochondrial DNA in wildlife taxonomy and conservation biology: cautionary notes. *Wildlife Society Bulletin*, 21(3):339-348.
- Cronin, M.A. 1997. Systematics, Taxonomy, and the Endangered Species Act: The Example of the California Gnatcatcher (*Polioptila californica*). *Wildlife Society Bulletin* 25:661-666.
- Cronin, M.A. 2003. Research on deer taxonomy and its relevance to management. *Ecoscience* 10:333-343.
- Cronin, M. A. 2006. A Proposal to eliminate redundant terminology for intra-specific groups. *Wildlife Society Bulletin* 34:237-241.
- O'Corry-Crowe, G. E., R. S. Suydam, A. Rosenberg, K. J. Frost, and A. E. Dizon. 1997. Phylogeography, population structure and dispersal patterns of the beluga whale *Delphinapterus leucas* in the western Nearctic revealed by mitochondrial DNA. *Molecular Ecology* 6:955-970.
- O'Corry-Crowe, G. E. and L. F. Lowry. 1997. Genetic ecology and management concerns for the beluga whale (*Delphinapterus leucas*). Pages 249-274 in A. E. Dizon, S. J. Chivers, and W. F. Perrin (editors) *Molecular Genetics of Marine Mammals*. Special Publication 3, Society for Marine Mammalogy. .
- O'Corry-Crowe, G. E., A. E. Dizon, R. S. Suydam and L. F. Lowry. (2002) Molecular genetic studies of population structure and movement patterns in a migratory species: The beluga whale *Delphinapterus leucas*, in the western nearctic. Pages 464 in C. J. Pfeiffer (editor), *Molecular and cell biology of marine mammals*. Kreiger Publishing Company, Malabar, Florida.
- Ramey, R. R. II, H.P. Liu, C.W. EPPs, L.M. Carpenter, and J.D. Wehausen. 2005. Genetic relatedness of the Preble's meadow jumping mouse (*Zapus hyudsonius preblei*) to nearby subspecies of *Z. hudsonius* as inferred from variation in cranial morphology, mitochondrial DNA and microsatellite DNA: implications for taxonomy and conservation. *Animal Conservation* 8:329-346.



- Trujillo, R. G., T. R. Loughlin, N. J. Gemmell, J.C. Patton, and J. W. Bickham. 2004. Variation in microsatellites and mtDNA across the range of the Steller sea lion. *Journal of Mammalogy* 85:338-346.
- Zink, R. M. 2004. The role of subspecies in obscuring avian biological diversity and misleading conservation policy. *Proceedings of the Royal Society of London B.* 271:561-564.
- Zink, R. M., G. F. Barrowclough, J. L. Atwood, and R. C. Blackwell-Rago. 2000. Genetics, taxonomy, and conservation of the threatened California gnatcatcher. *Conservation Biology* 14:1394-1405.

Matthew A. Cronin, Ph.D.  
Research Associate Professor  
University of Alaska Fairbanks  
Palmer Research Center  
533 E. Fireweed Ave.  
Palmer, Alaska 99645

14 July 2005

Congressman Richard Pombo  
U.S. House of Representatives  
2411 Rayburn House Office Building  
Washington, D.C. 20515

The Honorable Craig Manson  
Assistant Secretary for Fish, Wildlife, and Parks  
Department of the Interior  
1849 C Street NW  
Washington, D.C. 20240

Dear Congressman Pombo and Judge Manson,

I am writing to you about current issues in Alaska and other parts of the U. S. related to the Endangered Species Act (ESA). I am a biologist with expertise in population biology, genetics, systematics, and taxonomy. I am a Research Associate Professor at the University of Alaska, and formerly worked in the private sector and with the U.S. Fish and Wildlife Service. I had the honor of being with you at the Western Governors' Association ESA summit in San Diego last December.

As you know, there are two primary levels of consideration for the ESA: the listing of an entire species, and the listing of subspecies and distinct population segments. At the level of entire species, I applaud the recent decisions by the Department of the Interior recognizing that the black-tailed prairie dog and sage grouse are not threatened or endangered in the western U. S. In these cases, taking the time to obtain good data on numbers and distribution<sup>1</sup>, and proactive planning with states and private stakeholders prevented inappropriate listings under the ESA. I suggest this can also be the case for other species. For example, there has been a recent petition to list polar bears worldwide under the ESA because of concerns over habitat changes 100 years in the future. I believe that you will find that this petition, like those for the sage grouse and prairie dog, is not worthy of consideration. Polar bears are not threatened, and many populations are stable or growing. In this case, we need proactive approaches to conduct science-based wildlife management, not premature ESA listings.

The listing of subspecies and populations under the ESA is of particular concern to me because the study of variation within species comprises much of my research. It is clear from the name of the Act that the focus of the ESA should be on entire species, not

subspecies and distinct population segments. Indeed, Congress cautioned the managing agencies to list subspecies and populations sparingly, and there is a system in place that could prioritize listing consideration of full species over subspecies and populations (Federal Register 21 Sept. 1983, Vol. 48, No. 184, pages 43098-43105). Nonetheless, there is a proliferation of listings of subspecies and populations. For example, although it is not widely recognized, approximately 70% of the mammals on the U.S. ESA list are not entire species, but are subspecies or populations<sup>2</sup>. Many subspecies and populations of birds and fish are also listed under the ESA.

As a scientist, I am keenly aware that subspecies and distinct population segments are often designated with subjective and arbitrary criteria. The National Marine Fisheries Service (NMFS) has even invented a new subjective name for populations of Pacific salmon (Evolutionarily Significant Unit, ESU)<sup>3</sup>. There are many subjectively defined subspecies (e.g., coastal California gnatcatcher, Cronin 1997<sup>4</sup>, Preble's meadow jumping mouse, Ramey et al. In Press<sup>5</sup>) and distinct population segments (e.g., Pacific salmon and steelhead "ESUs", lower 48 states populations of grizzly bear, wolf, and lynx, southwest Alaska stock of sea otters) that are questionable as units for ESA consideration. I believe that such designations of subspecies and populations has resulted in loss of scientific credibility of ESA determinations. Consider the following<sup>6</sup>:

"However, the subspecies concept has been criticized or rejected outright by several authors. Wilson and Brown (1953)<sup>7</sup> contended that the subspecies concept is so arbitrary a concept that it should be abandoned. Vanzolini (1992:189)<sup>8</sup> noted that '... present applications of the subspecies concept are uneven, frequently undocumented, and lead to no improvement of either evolutionary theory or practical taxonomy.' Futuyma (1986)<sup>9</sup> noted that there is so much variation among populations of most species that some combination of characters will distinguish each population from others and consequently there is no clear limit to the number of subspecies that can be recognized. Ehrlich (2000:49)<sup>10</sup> echoed this sentiment: 'Widespread species thus can be divided into any number of different sets of 'subspecies' simply by selecting different characteristics on which to base them,' and he summarized the issue: 'As is the case with other species, geographic variation in human beings does not allow *Homo sapiens* to be divided into natural evolutionary units. That basic point...has subsequently been demonstrated in a variety of organisms... and use of the subspecies (or race) concept has essentially disappeared from the mainstream evolutionary literature' (Ehrlich 2000:291)<sup>10</sup>. These problems associated with subspecies are manifested in the lack of concordance of patterns of molecular genetic variation and subspecies boundaries for several wildlife species (Cronin 1993)<sup>11</sup>. This includes such high profile groups as grizzly bears (*Ursus arctos*, Talbot and Shields 1996<sup>12</sup>, Paetkau et al. 1998<sup>13</sup>, Waits et al. 1998<sup>14</sup>) and spotted owls (*Strix occidentalis*, Haig et al. 2001)<sup>15</sup>."

The ESA is supposed to use the best science available, and there is a problem if subspecies are arbitrarily designated. Populations are generally as arbitrarily defined as subspecies, and therefore populations are also questionable as units for ESA consideration. There are problems with designation of some species, but biological

species (of vertebrates) are better defined than subspecies and populations, and in my opinion they are the appropriate unit for consideration under the ESA.

There is a special problem with the selective use of genetic data to identify subspecies and populations<sup>11</sup>. Mr. H. D. Hall, the Director of the Southwest Region of the U. S. Fish and Wildlife Service, in a directive (dated 27 Jan. 2005) expressed concern regarding the use of genetic data to identify units for ESA consideration. Mr. Hall noted that it is not legitimate to split populations once they are designated, in accordance with a recent court ruling disallowing exclusion of hatchery salmon from designated populations (i.e., ESUs). I salute Mr. Hall's effort to apply the ESA to populations sparingly, as directed by Congress, although I think he doesn't go far enough. As described below, I believe that only full biological species (identified by a Latin binomial name) should be considered for ESA listing. However, if groups below the species level continue to be considered under the ESA, we should not list a population or subspecies without unequivocal, quantitative data regarding its status relative to others. Some examples will illustrate the potential for misuse of genetic data.

The Secretary of the Interior is currently considering a petition to list the southwest Alaska stock of sea otters as a distinct population segment under the ESA (Federal Register Vol. 69, No. 28 February 11, 2004). The proposal to list these animals claims this stock is genetically discrete from other stocks. However, I am the biologist who wrote a report cited in the proposed listing and I question this interpretation of my work (see Cronin et al. 2002<sup>16</sup>, and the attached document). Consider that the southwest stock supplied the majority of the animals used to reestablish the sea otter in southeast Alaska (now called the southeast Alaska stock), but now the southwest and southeast stocks are being called genetically discrete. It is highly unlikely that meaningful genetic divergence has occurred in the few generations since these stocks shared common ancestry. The declaration of genetic discreteness of the sea otter stocks is selective presentation and interpretation of the available science.

Consider also the case of the Steller sea lion. This species was split into eastern and western stocks, and the western stock was listed as endangered. Although some genetic markers indicate a degree of separation, a new analysis shows that the two stocks are genetically very similar (Trujillo et al. 2004<sup>17</sup>). This suggests that the designation and listing of these stocks was premature. I expect that the consideration for ESA listing of the beluga whale in Cook Inlet, Alaska (by NMFS), will result in a similar finding.

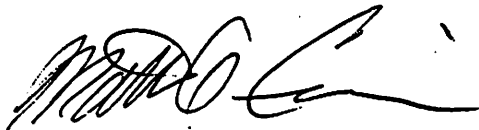
Please note the other recent ESA decisions regarding the western gray squirrel in the State of Washington, and the marbled murrelet in California, Oregon, and Washington. In these cases the populations considered for ESA listing were found not to be legitimate distinct population segments. This appears to be the case with the sea otter and Steller sea lion as well. It appears to me that in these cases and others, the designations of subspecies and distinct population segments are left up to agency biologists, without rigorous peer-review or measurable scientific standards. The science used to study subspecies and populations is quite complex, but it is important to acknowledge that their

designation is often subjective. I submit that this will remain an inherent problem with identification of subspecies and populations that must be dealt with regarding the ESA.

I believe that the subjective nature of subspecies and population designations is a good reason for the federal government to focus the ESA on entire species, and for the States to manage subspecies and populations. This would greatly simplify implementation of the ESA and return local management to the States where it traditionally resides. As you may recall, Dr. R. Simmons and Dr. R. Ramey made this suggestion at the Western Governors' Association ESA Summit in San Diego last December. To achieve this, I suggest the definition of species in the ESA be changed to "an entire biological species identified with a Latin binomial name", and that "subspecies and distinct population segments" be deleted from the current definition.

I appreciate your efforts to improve the ESA, and offer my assistance. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew A. Cronin', written in a cursive style.

Matthew A. Cronin, Ph.D.  
Research Associate Professor

Enclosures

## References

- <sup>1</sup>Vermeire, L. T., R. K. Heitschmidt, P. S. Johnson, and B. F. Sowell. 2004. The prairie dog story: Do we have it right? *BioScience* 54:689-695.
- <sup>2</sup><http://endangered.fws.gov/wildlife.html>
- <sup>3</sup>DeWeerdt, S., K. Crandall, C. Moritz, E. Sinclair, R. Waples, R. Wayne, and A. Clark. 2002. What really is an Evolutionarily Significant Unit? *Conservation Biology in Practice* 3:1-17.
- <sup>4</sup>Cronin, M.A. 1997. Systematics, Taxonomy, and the Endangered Species Act: The Example of the California Gnatcatcher (*Polioptila californica*). *Wildlife Society Bulletin* 25:661-666.
- <sup>5</sup>Ramey, R. R., H. P. Liu, C. W. Epps, L. M. Carpenter, and J. D. Wehausen. In Press. Evolutionary relationships of the Preble's meadow jumping mouse to nearby subspecies of *Z. hudsonius* as revealed by analysis of cranial morphometric, mitochondrial DNA, and microsatellite data: implications for taxonomy and conservation. *Animal Conservation*.
- <sup>6</sup>Cronin, M. A. Submitted. A proposal to eliminate redundant terms for intra-species groups and use only the terms subspecies, populations, and subpopulations. *Wildlife Society Bulletin*.
- <sup>7</sup>Wilson, E. O., and W. L. Brown. 1953. The subspecies concept and its taxonomic applications. *Systematic Zoology* 2:97-122.
- <sup>8</sup>Vanzolini, P. E. 1992. Third world museums and biodiversity. Pages 185-198 in N. Eldredge, editor. *Systematics, ecology, and the biodiversity crisis*. Columbia University Press, New York, USA.
- <sup>9</sup>Futuyma, D. J. 1986. *Evolutionary biology*. Sinauer Associates, Sunderland, Massachusetts, USA.
- <sup>10</sup>Ehrlich, P. R. 2000. *Human Natures*. Island Press, Shearwater Books, Washington, D.C., USA.
- <sup>11</sup>Cronin, M. A. 1993. Mitochondrial DNA in wildlife taxonomy and conservation biology: cautionary notes. *Wildlife Society Bulletin* 21:339-348.
- <sup>12</sup>Talbot, S. L., and G. F. Shields. 1996. Phylogeography of brown bears (*Ursus arctos*) of Alaska and paraphyly within the Ursidae. *Molecular Phylogenetics and Evolution* 5:477-494.

- <sup>13</sup>Paetkau, D., G. Shields, and C. Strobeck. 1998. Gene flow between insular, coastal, and interior populations of brown bears in Alaska. *Molecular Ecology* 7:1283–1292.
- <sup>14</sup>Waits, L.P., S.L. Talbot, R.H. Ward, and G.F. Shields. 1998. Mitochondrial DNA phylogeography of the North American brown bear and implications for conservation. *Conservation Biology* 12:408–417.
- <sup>15</sup>Haig, S. M., R. S. Wagner, E. D. Forsman, and T. D. Mullins. 2001. Geographic variation and genetic structure in spotted owls. *Conservation Genetics* 2:25–40.
- <sup>16</sup>Cronin, M.A., L. Jack, and W. Buchholtz. 2002. Microsatellite DNA and mitochondrial DNA variation in Alaskan sea otters. Unpublished report submitted to the U.S. Fish and Wildlife Service.
- <sup>17</sup>Trujillo, R. G., T. R. Loughlin, N. J. Gemmell, J.C. Patton, and J. W. Bickham. 2004. Variation in microsatellites and mtDNA across the range of the Steller sea lion. *Journal of Mammalogy* 85:338–346.

## Attachment

Review of science related to the Proposed ESA listing of the Southwest Alaska Stock of Sea Otters

(Federal Register/ Vol. 69, No. 28 February 11, 2004/ Proposed Rule. Department of the Interior, Fish and Wildlife Service, 50 CFR Part 17 RIN 1018-AI44)

Matthew A. Cronin, University of Alaska

14 December 2004

The presentation of genetic information in support of the designation of a DPS in the Proposed Rule was selective and incomplete (Federal Register/ Vol. 69, No. 28 February 11, 2004/ Proposed Rule. Department of the Interior, Fish and Wildlife Service). This applies to the level of subspecies as well as the proposed population level. Although the current subspecies distribution was noted in the Proposed Rule, important scientific considerations were not included. Skull dimensions and other morphological measurements of sea otters have been used to name subspecies and stocks. However, without assessment of the variance of the traits measured, sample sizes, heritability, and environmental influences, such subspecies or stock designations are questionable. This is especially important because taxonomy is based on genetic relatedness, not necessarily morphological similarity. Morphology is strongly influenced by environmental, non-genetic factors, and may not reflect phylogenetic relationships. This is very basic science and the subjectivity of morphological subspecies designations is well-documented in the literature (see Cronin 1993, 1997).

For sea otters, there are important questions about the subspecies designations based on morphology. First, although it was not noted in the Proposed Rule, there are mtDNA data that suggest the southern sea otter (*Enhydra lutris nereis*) that is presently restricted to California, may have originally extended as far north as Prince William Sound (Larson et al. 2002 and references therein). Second, the mtDNA and microsatellite data indicate a close relationship between otters on the Medny Island, Russia (*Enhydra lutris lutris*) and the southwest Alaska stock (*Enhydra lutris kenyoni*, Cronin et al. 1996, 2002). That is, the relationships between subspecies are indefinite and subject to frequent revision depending on which data one chooses to use. This is also the case with stocks and populations as described below.

With regard to the designation of a southwest Alaska DPS, the Proposed Rule did not adequately acknowledge that the discreteness criteria for a DPS is subjective. Rather than conclude that the southwest stock is discrete, one could justifiably conclude that the three Alaska stocks, and the Russian stocks, share mtDNA and microsatellite alleles, and are simply sub-populations that occur in a linear range along the coast. The genetic similarity across the thousands of kilometers of range of the sea otter is actually quite remarkable.



However, I acknowledge that the genetic results cited in the Proposed Rule (Cronin et al. 2002) indicate that the southwestern Alaska stock has different mitochondrial DNA (mtDNA) and microsatellite DNA allele frequencies compared to the southcentral and southeast Alaska stocks. The mtDNA differences are greater than the microsatellite DNA differences. However, it should also be acknowledged that the stocks share many of the same alleles and there is no indication of long-term genetic divergence. In addition, the allele frequency differences are not absolute, as another study showed no significant differentiation of otters from the southwest and southeast stocks, or between the southeast stock and Washington (Larson et al. 2002).

Given these considerations, it is important to note that one of the primary sources cited for genetic data (Cronin et al. 2002) is not published in a peer-reviewed journal and has several limitations. The nuclear DNA results (microsatellites) from that study are based on only two loci and relatively small sample sizes compared to the numbers of animals in the populations sampled. It is also important that the Proposed Rule did not cite a published paper (Larson et al. 2002) that included seven microsatellite DNA loci (and mtDNA) and may provide a better assessment of nuclear genetic differentiation than the Cronin et al. (2002) report. Larson et al. (2002) should be considered and incorporated with the other insights we provide in these comments. Another limitation of the Cronin et al. (2002) report is the analysis of only one mtDNA segment (the ND3/4 gene). An earlier paper analyzed four segments (ND1, ND3/4, ND5/6, and 12s-16srRNA, Cronin et al. 1996). This means that there is less resolution of mtDNA alleles in the 2002 study than in the 1996 study. This was noted by Cronin et al. (2002) but not acknowledged in the Proposed Ruling.

There are some additional important aspects of the genetic data. The primary differentiation of the southwest Alaska stock is for mitochondrial DNA (mtDNA) which is maternally inherited and thus reflects female-mediated gene flow only. Gene flow mediated by males, which is probably greater than that by females in sea otters, would not be reflected in these data. The fact that most of the population differentiation is reflected in the mtDNA allele frequencies suggests that males may move between areas more than females, and the stocks may not be as discrete as claimed in the Proposed Rule. This is also the case with Steller sea lions (Trujillo et al. 2004).

The Proposed Rule simply notes there is some differentiation of allele frequencies, and does not note the potential causes of the current genetic patterns. It has been noted previously that the current genetic patterns may reflect either pre- or post-exploitation patterns (Cronin et al. 1996, Gorbics and Bodkin 2001). That is, the drastic population reductions in the 1700's to the early 1900's, and transplanted populations, not the original population genetic structure, may have determined the current patterns (Cronin et al. 1996). It needs to be emphasized that the differences in mtDNA and microsatellite allele frequencies may reflect genetic drift in the remnant populations, not necessarily pre-exploitation genetic structure of the stocks.

Perhaps the most striking omission in the Proposed Rule is the declaration of genetic discreteness of the southwest Alaska stock, without qualification that it was the primary stock contributing to the reestablishment of the southeast Alaska stock about 30 years ago. The close genetic relationship of the southwest and southeast stocks is clearly reflected in the genetic data as these stocks are proximate in the cluster diagrams in Cronin et al. (2002). It is obvious that the southwestern and southeast stocks share recent common ancestry and are not "genetically discrete" in any absolute sense.

Because of translocations from the Aleutians to southeast Alaska, British Columbia, and Washington, the southwest Alaska stock is undeniably genetically related to otters in these areas. If genetic relatedness is relevant to identification of management units then all of these groups could be included in a DPS. This results in a DPS consisting of approximately 53,600 individuals between the southwest and southeast stocks and extending over a large coastal area of Alaska. This may be impractical because geographic proximity is a more important management consideration than genetic relatedness. These points are dealt with in the literature and should be properly reviewed and incorporated into treatments of sea otter populations (Cronin 1993, 1997, 2003).

Finally, it is a cause of concern that the Proposed Rule is very selective in the use of the content of the Cronin et al. (2002) report and the other literature on sea otter genetics. As shown below, Cronin et al. (2002) exercised proper scientific caution in describing limitations of the data and alternative interpretations. Other papers cited by Cronin et al. (2002) discuss the need for thoughtful use of genetic data, and avoidance of superficial one-sided interpretations (e.g., Cronin 1993, 1997). A comparison of the following quotations from the Cronin et al. (2002) report with the findings of the Proposed Rule will show the selective nature of the Proposed Rule.

**"The mtDNA data result in a cluster of the southwest Alaska locations within a larger cluster containing southeast Alaska locations and Medny Island, Russia, and a distinct cluster of southcentral Alaska locations. The dendrograms for the Mvis027 and Mvis072 microsatellite loci show locations from different Alaska regions and non-Alaska locations mixed in different clusters. The dendrogram for the two microsatellite loci together shows a cluster containing the southcentral Alaska locations and Kodiak Island, a cluster of southwest and southeast Alaska locations, and a cluster of the two Russian locations. The consensus dendrogram constructed with genetic distances considering all three loci had a distinct southcentral Alaska cluster and a cluster with southwest and southeast Alaska locations and Medny Island, Russia. In this dendrogram, Kodiak Island occurs outside the cluster containing the other southwest locations."**

**"The overall genetic relationships depicted in the three-locus dendrogram in Figure 2 could be used to support the designation of southeast, southcentral, and southwest Alaska stocks corresponding to three geographic regions (Gorbics and Bodkin 2001). However, it should be noted that there is intra-regional variation in haplotype and allele frequencies, and the stocks are not differentiated in an absolute**

**manner. The most notable case is the relatively close relationship between the southwest and southeast regions, compared to the southcentral region. This probably reflects recent common ancestry of otters in these regions resulting from translocations of otters from the southwest region to the southeast region.**

**“It is important to note that there are no major phylogenetic breaks among the otters in the Alaska regions. The otters in different regions share the same mtDNA haplotypes and microsatellite alleles, although frequencies may vary among locations. This is not surprising because of the potentially high mobility of otters over time and the historical relationships among regions. Most notably, the southwest and southcentral regions (specifically Prince William Sound and Amchitka Island) were the sources of otters trans-located to reestablish populations in the southeast region (Bodkin et al. 1999). Therefore, the otters in different regions should not be considered evolutionarily significant units (ESU), but are more appropriately considered management units (Cronin 1993; Moritz 1994; Cronin 1997).”**

The points in these quotations showing the non-absolute nature of the genetic differentiation of the Alaska stocks were not noted in the Proposed Rule. Given these considerations, the only legitimate rationale for declaring the southwest Alaska stock discrete is because of its geographic location (see Cronin 2003). Invoking genetic differentiation without qualification of the recent common ancestry and similar allele frequencies between the stocks is selective and unscientific.

## References

Bodkin, J.L., B.E. Ballachey, M.A. Cronin, and K.T. Scribner. 1999. Population demographics and genetic diversity in remnant and translocated populations of sea otters. *Conservation Biology* 13:1378-1385.

Cronin, M.A. 1993. Mitochondrial DNA in wildlife taxonomy and conservation biology: cautionary notes. *Wildlife Society Bulletin*, 21(3):339-348.

Cronin, M.A., J. Bodkin, B. Ballachey, J. Estes, and J.C. Patton. 1996. Mitochondrial DNA variation among subspecies and populations of sea otters (*Enhydra lutris*). *Journal of Mammalogy*, 77:546-557.

Cronin, M.A. 1997. Systematics, Taxonomy, and the Endangered Species Act: The Example of the California Gnatcatcher (*Polioptila californica*). *Wildlife Society Bulletin* 25:661-666.

Cronin, M.A., L. Jack, and W. Buchholtz. 2002. Microsatellite DNA and mitochondrial DNA variation in Alaskan sea otters. Unpublished report submitted to the U.S. Fish and Wildlife Service.

Cronin, M.A. 2003. Research on deer taxonomy and its relevance to management. *Ecoscience* 10:333-343.

Gorbics, C. S., and J. L. Bodkin. 2001. Stock structure of sea otters (*Enhydra lutris kenyoni*) in Alaska. *Marine Mammal Science* 17:632-647.

Larson, S., R. Jameson, J. Bodkin, M. Staedler, and P. Bentzen. 2002. Microsatellite DNA and mitochondrial DNA variation in remnant and translocated sea otter populations. *Journal of Mammalogy* 83:893-906.

Moritz, C. 1994. Applications of mitochondrial DNA analysis in conservation: a critical review. *Molecular Ecology* 3:401-411.

Trujillo, R. G., T. R. Loughlin, N. J. Gemmell, J.C. Patton, and J. W. Bickham. 2004. Variation in microsatellites and mtDNA across the range of the Steller sea lion. *Journal of Mammalogy* 85:338-346.

# Cordova District Fishermen United

Celebrating 70 Years of Service to Commercial Fishermen in Cordova, Alaska  
P.O. Box 939 Cordova, Alaska 99574 Telephone 907.424.3447 Fax 907.424.3430

May 30, 2006

Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 W 4<sup>th</sup> Avenue, Suite 306

## Report on seabird interactions with small vessels research

Dear Madame Chair and members of the Council,

Members of the Groundfish Division of Cordova District Fishermen United participated in the research undertaken by both the Washington Sea Grant and Alaska Sea Grant Marine Advisory Program to assess seabird avoidance measures for small longline vessels.

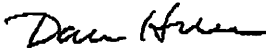
We support the recommendations of the Washington Sea Grant program resulting from this research, and ask that the Council initiate analysis for seabird avoidance regulatory changes based on those recommendations.

We believe this research is a valuable contribution to conservation issues in fisheries management, and is a model for collaborative efforts between researchers and fishermen.

Many thanks to Ed Melvin at Washington Sea Grant and the MAP staff at Alaska Sea Grant for their work with the fishermen.

Thank you for taking our comments into consideration.

Sincerely,



Dan Hull, Chairman  
CDFU Groundfish Division

RECEIVED  
MAY 30 2006  
N.P.F.M.C.



# Public Testimony Sign-Up Sheet

## Agenda Item B-Reports

	NAME (PLEASE PRINT)	AFFILIATION
6	1 X Bob Ahern	FVWA
6	2 X Ian Boyd - miss leave	University of St Andrews, UK
3	3 X TERRY LEITZEL	ICICLE SEAFARERS
6	4 X JOHN GAUVIN	H+G ENVIRONMENTAL WORKGROUP
6	5 X Jobo Brewer Brewer PAINA	UCB Co.
3	6 X Dave Fraser	Adak Fisheries Inc
6	7 X Clem Tullion	Alert Enterprise Corp (Lemih)
3	8 X Donna Parker	Arctic Storm
6	9 X THORN SMITH / GREG BAROGH	WACA
3	10 X SANDRA MOLLER	Alert Enterprise
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	
	25	

NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

## Revised Steller Sea Lion Recovery Plan Overview

- Background and Plan Development
- Steller Sea Lion Plan Summary
- NOAA Fisheries Next Steps




## Steller Sea Lion Recovery Team

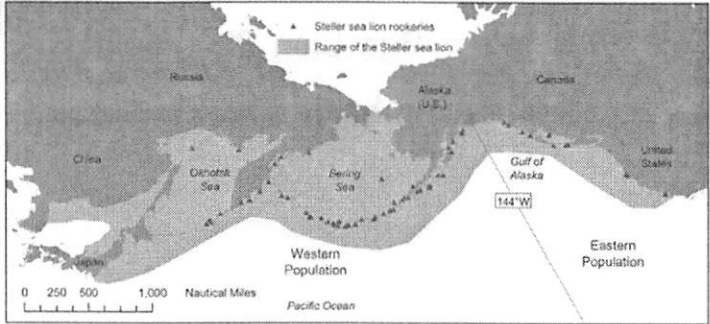
Team Member	Affiliation
Dr. Robert J. Small - Chair	Alaska Department of Fish and Game
Dr. Shannon Atkinson	Alaska SeaLife Center/UAF
Ms. Linda Behnken	Alaska Longline Fishermen's Association
Mr. Vernon Byrd	U.S. Fish and Wildlife Service
Mr. Dave Fraser	F/V Muir Milach
Mr. Lowell Fritz	National Marine Fisheries Service
Dr. Tom Gelatt	National Marine Fisheries Service
Dr. David Hanson	Pacific States Marine Fisheries Commission
Ms. Lianna Jack	Alaska Sea Otter and Steller Sea Lion Commission
Dr. Denby Lloyd	Alaska Department of Fish and Game
Ms. Donna Parker	F/V Arctic Storm
Mr. Ken Pitcher	Alaska Department of Fish and Game
Dr. Alan Springer	Institute of Marine Science/UAF
Mr. Ken Stump	Citizen
Dr. Andrew Trites	N. Pacific Univ. Marine Mammal Research Consortium
Dr. Terrie Williams	University of California Santa Cruz
Ms. Kate Wynne	University of Alaska



## Steller Sea Lion



### Western and Eastern Distinct Population Segments (DPS)



3

## Planning Process Overview

- 1990: Steller sea lions listed as Threatened, 1 species
- 1992: First recovery plan completed
- 1997: Species split into western and eastern populations, western uplisted to Endangered
- 2001: First plan obsolete, all but 1 action completed
- 2001: Second recovery team formed 20 original members, 17 now (10 Biologists & 7 stakeholders)
- 2006: Revised plan completed and provided to NOAA Fisheries (unanimous)

May 24: Notice of Availability of Plan

4



Plan Contains Key Elements of A Recovery Plan Section 4(f) of the ESA

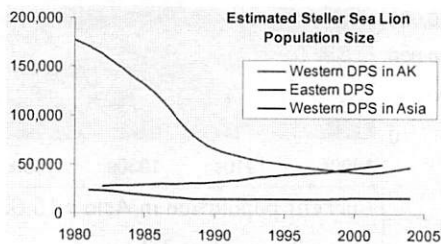


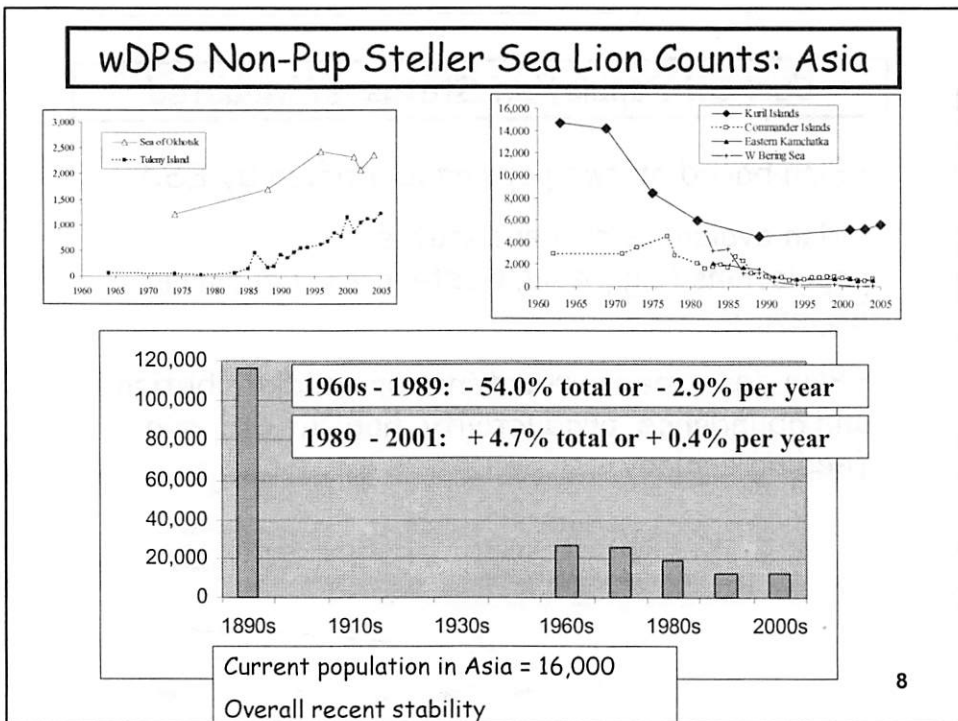
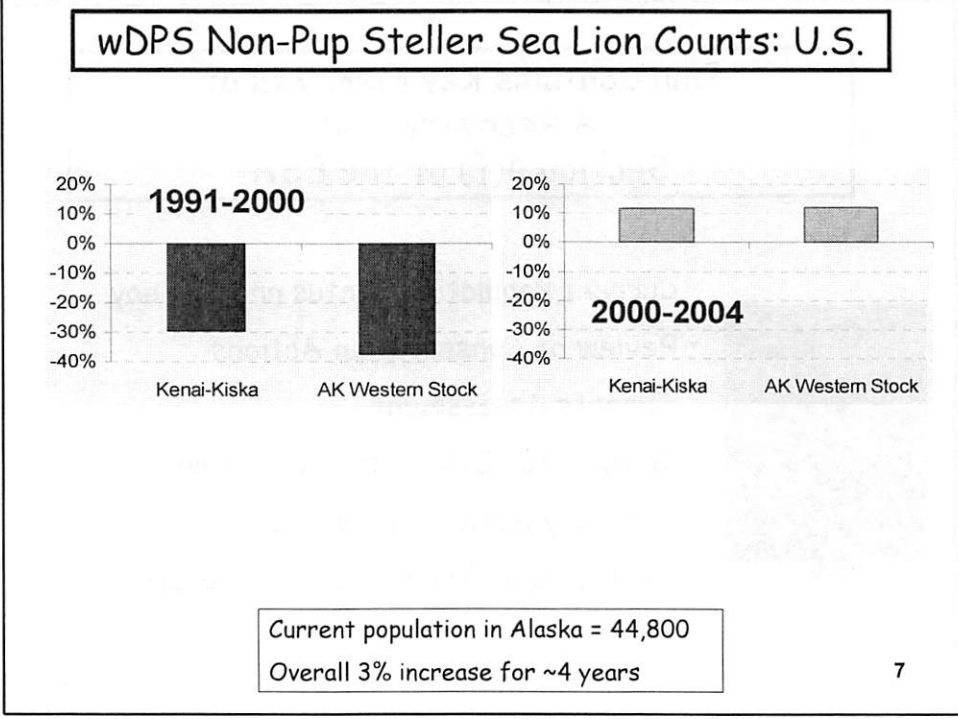
Photo: ADF&G

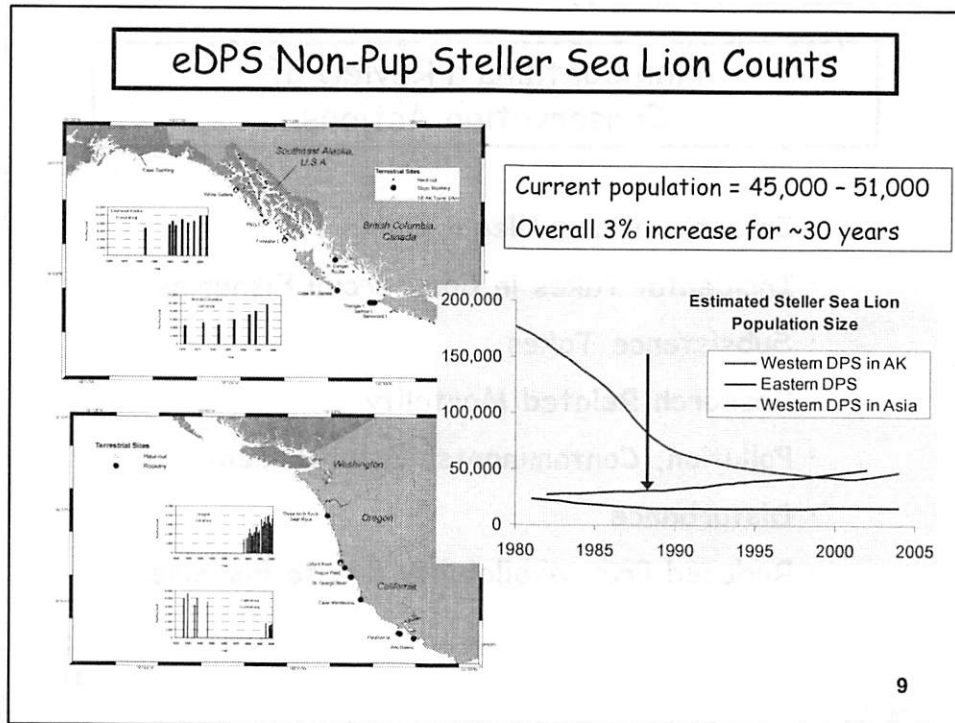
- Current Population Status and Ecology
- Review of Conservation Actions
- Threats Assessment
- Criteria for Downlisting/Delisting
- Recovery Actions (78 wDPS)
- Estimates of Time/Cost to Recovery

Current Population Status is Evaluated


- Plan based on two pops as identified by ESA
- Plan evaluates current status of sub-populations (e.g., Asia, western AI, California, BC, etc.)
- Plan describes current/historical distribution and abundance, productivity, habitat use, and feeding ecology







### Plan Contains a Review of SSL Ecology

	Vital Rates	80s	↓ juvenile/adult survival ↓ birth rates
	90s	↑ juvenile/adult survival ↓ birth rates <small>(Fay 2004; Holmes and York 2003); (Winship &amp; Trites 2006 just CGOA)</small>	
	00s	↑ juvenile/adult survival (CGOA; Ugamak) ↓ birth rates (↓CGOA; ↑other areas?)	
Extinction risk		York et al. 1996; Gerber & VanBlaricom 2001; Winship & Trites 2006; Goodman	
Diet		Greater size overlap with fisheries	
Foraging		Nearshore areas important for juveniles; Adult females: ?	

10

### Plan Contains a Review of Conservation Actions

- **Intentional and Illegal Killing**
- **Incidental Takes in Commercial Fisheries**
- **Subsistence Takes**
- **Research Related Mortality**
- **Pollution, Contaminants, Entanglement**
- **Disturbance**
- **Reduced Prey Availability due to Fisheries**

11

Photo: NMML

### Plan Contains a Threats Assessment

- Reviewed the factors likely influencing the sea lion population (mortality factors)
- Used a threats assessment to evaluate the likelihood that various factors would affect recovery (looking forward)
- Each Threat was ranked on a relative scale; thus relative likelihood of impact
- Also: uncertainty, feasibility of mitigation, etc.

12

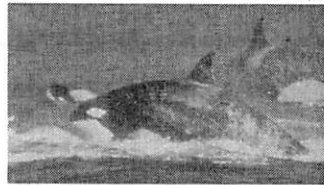
Relative Impact of Threats: western DPS

Threat	Uncertainty	Relative Impact	Feasibility Mitigation
Killer Whale	High	Potentially High	Low
Env. Variability	High	Potentially High	Low
Comp. Fisheries	High	Potentially High	High
Inc. Take (Fisheries)	Medium	Medium	Medium
Toxic Substances	High	Medium	Medium
Subsistence Harvest	Low	Low	High
Illegal Shooting	Medium	Low	Medium
Entanglement	Medium	Low	Medium
Disease/Parasitism	Medium	Low	Low
Disturbance/Vessels	Medium	Low	High
Disturbance/Research	Low	Low	High

13

Killer Whales, Fisheries, and the Environment

Potentially High: ranking of both Low and High



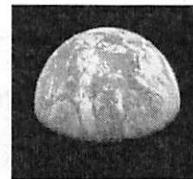
High

Low



High

Low



High

Low

SMCH	SMCH Unlikely	Long-term exploit.	Large biomass	76-77 Shift	76-77 in nat. var.
Modeling	eDPS↑ w/ KWs	Overlap	Intersp. Comp.	Outside natural variabil.	Gadids in diet b4
Predator Pit	KW diet lower trophic	Efficacy unknown	No local fish effect	Gadids increase in diet	Limited diet change
Kodiak Killers	Most Observations	Local removals	or adapt to fish effect	Future shifts	Gadids OK in diet <sup>14</sup>


**Threat Scenarios: wDPS**

Environmental  
variability/regime  
shift

Fishing

Multiple  
threat

Predation



15

Photo: NMML

**Plan's Goals and Strategy for Recovery  
Western DPS**

Goal: consistent with the ESA, downlist and then delist the wDPS

Strategy: 3 actions especially important to recovery

1. Maintain current (or equivalent) fishery conservation measures [Action 2.6.6]
2. Design and implement an adaptive management program to evaluate fishery conservation measures [Action 2.6.8]
3. Continue population monitoring and research on key threats - minimize uncertainty

16

### Downlisting/Delisting Criteria Development

- Required to develop "objective, measurable" criteria (biological) and listing factor (threats) criteria [ESA 4(a) & 4(f)]
- Approach: (a) performance of the population over a substantial time period, and (b) the reduction of threats.
- Developed a PVA to estimate risk of extinction based on recovery scenarios (Dr. Goodman; Appendix 3)
- PVA process was helpful, but the biological criteria were not developed directly from the PVA

#### Endangered

In danger of extinction

#### Threatened

Likely to become an endangered species in the foreseeable future

#### Delisted

Protections of the ESA no longer necessary

17

### Considerations for the Criteria

- PVA - long time period of recovery needed (30 years); considerable uncertainty regarding the decline and our inability to describe why
- eDPS is a model for recovery: 3% increase steady for 30 years, no environmental signal
- IUCN Endangered Criteria: 50% decline in 3 generations (30 years for SSLs)
- Reasons for listing: decline rate not numbers
- wDPS increasing at 3% since 2000; most likely scenario for recovery
- Concerns: juvenile survival & birth rates; environmental changes

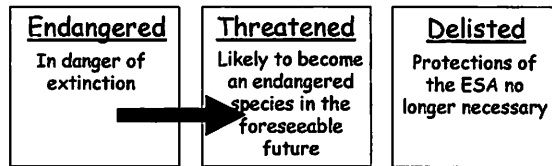
18

### Western DPS Downlisting Criteria: Threatened

1. The U.S. population (non-pup counts) should increase at a statistically significant rate (on average) for 15 years.
2. Population ecology and vital rates are consistent with the trend observed under criterion 1.
3. Population trends in at least 5 of 7 subareas are consistent with criterion 1; and the population trend in any two adjacent subareas cannot be declining significantly.

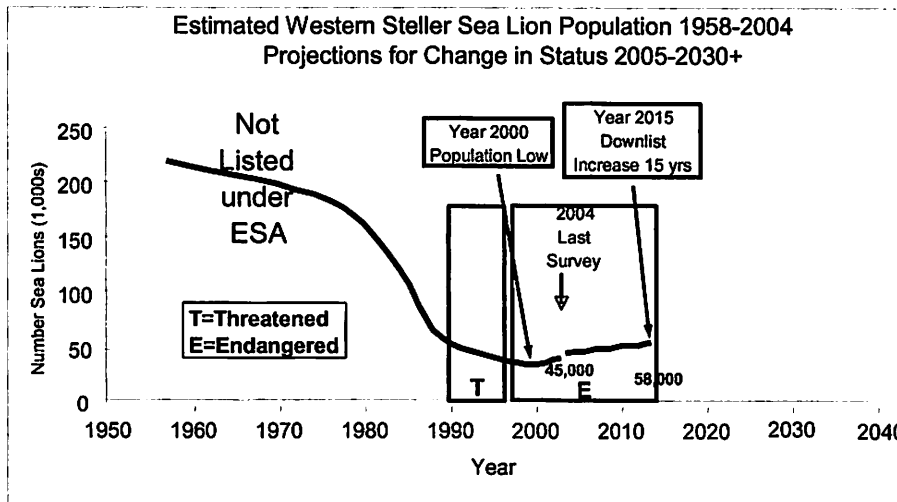
Subareas: EGOA, CGOA, WGOA, EAI, CAI, WAI, Russia/Asia

4. Listing factor (threats) criteria are met



19

### Possible Recovery Scenario



20



### Western DPS Delisting Criteria

1. The U.S. population (non-pup counts) should increase at 3% (on average) for 30 years (3 generations).
2. Population ecology and vital rates are consistent with the trend observed under criterion 1.
3. Population trends (non-pups) in at least 5 of 7 subareas are stable or increasing; the population trend in any two adjacent subareas cannot be declining significantly; and the trend in any one subarea cannot decline by 50%.

Subareas: EGOA, CGOA, WGOA, EAI, CAI, WAI, Russia/Asia

4. Listing factor (threats) criteria are met

**Endangered**

In danger of extinction

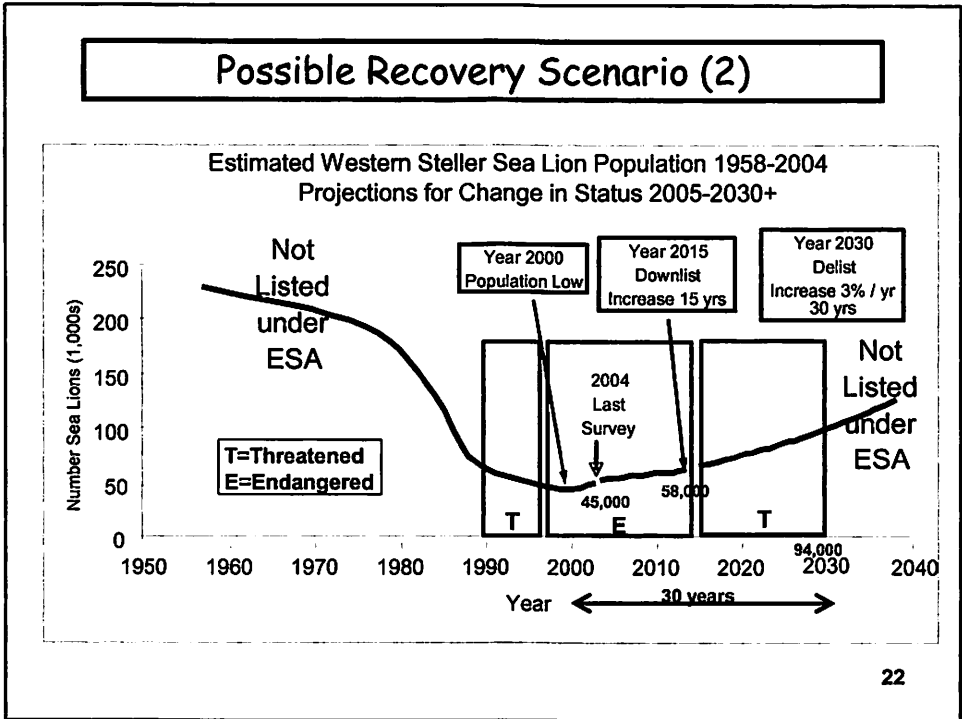
**Threatened**

Likely to become an endangered species in the foreseeable future

**Delisted**

Protections of the ESA no longer necessary

21



## Recovery Actions: wDPS

78 Actions in 5 categories

1. Baseline Population Monitoring: 11 actions; \$3.1 M
2. Insure Adequate Habitat and Range for Recovery: 23 actions; \$10.1 M
3. Protect from Over-Utilization for Commercial, Recreational, Scientific, or Educational Purposes: 10 actions; \$1.7 M
4. Protect from Diseases, Contaminants, and Predation: 18 actions; \$2.9 M
5. Protect from Other Natural or Manmade Actions and Administer the Recovery Program: 16 actions; \$2.3 M

Priority 1: Surveys and Adaptive Management

23

## Implementation

Action 1.5  
Develop an implementation plan

Fiscal Year Costs (\$K)				
FY 1	FY 2	FY 3	FY 4	FY 5
20.1	19.8	18.4	17.7	17.7

Required by ESA to provide estimate of costs to full recovery: \$ 430 M in 2030

- North Pacific Fisheries Management Council
- Alaska Fisheries Development Foundation
- University of Alaska - Gulf Apex Predator Project
- Prince William Sound Science Ctr
- Alaska SeaLife Center
- North Pacific Universities Marine Mammal Research Consortium
- Steller Sea Lion Research Initiative
- Alaska Department of Fish and Game
- NOAA NCS Predator-Prey
- NOAA OAR Climate Change
- NOAA Fisheries SSL Research

24

### Eastern DPS Threats Assessment/Actions

- Reviewed the factors likely influencing the sea lion population (mortality factors)
- None were identified as a threat to recovery (looking forward)
- 3% increase for about 30 years with no environmental signal in the trend rate
- California population of concern
- Recovery actions are limited to: (a) initiate a status review; (b) develop a post-delisting monitoring plan

25

### Eastern DPS Delisting Criteria

1. The population should increase at 3% (on average) for 30 years (3 generations).
2. Population ecology and vital rates are consistent with the trend observed under criterion 1.
3. Listing factor (threats) criteria are met

No subarea requirements

#### Threatened

Likely to become an endangered species in the foreseeable future

#### Delisted

Protections of the ESA no longer necessary

PVA results: very low risk of extinction

26

### Peer Review

- Plan underwent peer review before being released
- 5 reviewers:
  - Dr. Bob Hoffman (retired/MMC)
  - Dr. Don Siniff (Univ. Minn.)
  - Mr. Ed Bangs (FWS)
  - Dr. Terry Quinn (UAF)
  - Dr. Don Bowen (Dalhousie Univ.)

Generally favorable and changes were made (delisting criteria added); some concerns remain (criteria, research plan)

NOAA F. Will respond to peer review in final plan

27

### Our Next Steps

60-day public comment period - ends July 24, 2006

NOAA F. will finalize after consideration of public and peer review - late 2006

Comments may be submitted by:

- (1) E-mail: [SSLRP@noaa.gov](mailto:SSLRP@noaa.gov). include in the subject line the following document identifier: Sea Lion Recovery Plan. E-mail comments, with or without attachments, are limited to 5 megabytes;
- (2) Mail: P.O. Box 21668, Juneau, AK 99802;
- (3) Hand delivery to the Federal Building : 709 W. 9th Street, Juneau, Alaska;
- or (4) Fax: (907) 586-7012.

Interested persons may obtain copies of the Plan for review from the above address or on-line from the NMFS Alaska Region website:  
<http://www.fakr.noaa.gov/>.

28

Jan Boyd (PT)  
6-7-06 4:43pm

## Steller Sea Lion Recovery Plan

Review (draft)

I.L. Boyd

The following comments relate to the Draft Steller Sea Lion recovery Plan released in May 2006. These comments are designed to be constructive toward the objective of establishing a balanced approach to Steller sea lion (SSL) management. They focus upon the science underlying the Plan and the structure of the Plan.

The production of a Recovery Plan is a requirement for all species classified as *Endangered* or *Threatened* under the terms of the US Endangered Species Act.

This is the second Recovery Plan for the Steller Sea Lion, the first having been produced in 1992.

### A. Executive summary

1. The current draft of the Steller Sea Lion Recovery Plan was reviewed to assess whether it meets the need to establish a new strategy for the management of the SSL. The Plan was not structured in a way that allowed the reader quickly to gather the main strategic advice. Its length and the repetitive nature of much of its content could be greatly improved with judicious editing. There may be a better process than the one used to date to make sure this document is fit for purpose.
2. However the overall conclusion of the Plan – that there is currently insufficient justification for down-listing the western DPS and that there is a strong case for down-listing the eastern DPS - seems sound. Nevertheless the current system used to define the criteria for de-listing seems to be slightly arbitrary.
3. There also needs to be a greater appreciation of the interaction between SSL biology and socio-economics within the Plan. If any recovery of the SSL is to last, and assuming that fishery regulations are partly responsible for recovery, this needs to be accompanied by appropriate engineering of the future economics of the fishery itself.
4. The Plan needs to make a clear statement about the concept of “recovery” because this is often misunderstood to mean the recovery to historical population levels. There is little biological justification for an expectation that the SSL can recover in this sense and the Plan is ambiguous on this point. While it may be possible to meet the needs of the ESA designation to minimise the risk of extinction in a declining population, this should not mean that the community needs to embark on a process of restoring historical population levels.
5. The Plan does not do an adequate job of analysing the outcome of previous management actions. The Plan provided an opportunity to repeat retrospective analyses of the population dynamics with the additional information about measures taken during the past 15 years to regulate human activities. The effort made to analyse the historical causes of the decline was disproportionate to its significance. Parsing this variance between different hazards is probably

- impossible. There is a need to concentrate upon understanding hazards that are amenable to directed management rather than the full range of hazards.
6. This report recommends that the Plan should be restructured to be presented within a risk assessment/mitigation framework. The current structure is confusing and fails to meet its objectives, especially in terms of prioritising between recovery actions. This can probably be dealt with most effectively with a root and branch change in approach to the compilation of the document.
  7. The current divisions between the east and western distinct population segments needs to be revisited based upon current evidence and theory. There may be considerable advantages, and much more biological realism, to considering the SSL population in a metapopulation framework.
  8. The PVA seems to bring a rather confusing picture to the Recovery Plan and my recommendation would be that it should be excluded altogether. It has some serious deficiencies but, even though the Recovery Team appeared not to use the PVA explicitly within the Plan, its influence has been pervasive and its exclusion will result in a need to revise major sections.
  9. Throughout the Plan, including the PVA, there is an assumption of homogeneity of quality amongst individuals. This affects many aspects of the current data and the analyses of vulnerabilities. In reality, most of the future viability of the population is likely to be down to a rather small proportion of the population including particularly successful individuals, especially females. The Plan needs to reflect this in a more balanced way and it needs to be captured in future modelling and research actions.
  10. There is inconsistency in how threats are judged. For some threats high levels of uncertainty are used to justify a precautionary approach but in others uncertainty is largely ignored. The classification of the threats appears to successfully reflect preconceptions rather than a balanced assessment of the evidence.
  11. The research needs are presented as a wish list and need to be presented within a framework that maps on to the principal requirements for information that will allow the development of new mitigation methods and assesses the success of current mitigation measures. There is little in the list of research proposed that is inspiring. In reality, we need to know the multi-species functional response of the SSL before we can make much progress about predicting the impacts of changes in prey availability.
  12. Overall, this draft of the Plan needs a lot of work to render it fit for purpose. I recommend that it should now be given to an independent group to edit and restructure as necessary.

## **B. Preliminary acknowledgements**

This document is based upon an analysis of the Plan that was constrained by the time available between publication and the meeting of the North Pacific Fisheries Management Council. It is, therefore, to some extent preliminary.

I recognise that the Recovery Team that was responsible for drawing up the Draft Plan has specialised knowledge and enormous experience in the subject that I cannot hope to match. I also recognise that the Recovery Plan is driven by the format and priorities set down in the Endangered Species Act and the Marine Mammal protection

Act. The extent to which this is a constraint on the format and content of the Plan has been taken into account as much as possible in the following comments.

This review was commissioned by the Marine Conservation Alliance which was represented on the Recovery Team but which represents a group with special interests. Although they have naturally taken an interest in the content of this report, the views expressed are mine and they would not have changed whatever group had requested this review.

I have also approached this assessment of the Plan by attempting to deal with what I perceive as the big issues and I will not dwell on detail except for illustration.

### **C. Critical overview of the document structure and general content**

The detailed, comprehensive nature of the Plan is impressive. It reflects a very large amount of thought and effort on the part of the Recovery Team and it summarises the outcomes from a substantial research effort and much debate from a broad spectrum of the stakeholder community.

These features are both a strength and a weakness. The resulting document is long and fails to crystallize what has become a complex subject with a plethora of strands of evidence pointing, confusingly, sometimes in different directions. The weighting placed on each strand of evidence is also subjective to a great extent. While some strands may be misleading others may be entirely congruent with the true picture, but there, unfortunately, no way of testing which of these is correct. Although the Recovery Team chose, correctly in my view, to adopt a “weight of evidence” approach instead of relying only on a quantitative model, I got a strong feeling that the Recovery Team struggled to deal with this approach. The result is a rather rambling, occasionally inconsistent review of the evidence and an approach to assessment of both the evidence and future actions that lacks a transparent structure. Inconsistencies come from the repetitive approach to the review of evidence that is often revisited on several occasions throughout the document, sometime with a slightly different slant. A committee wrote the document and this is certainly the impression it conveys.

Interestingly, many of the following criticisms and suggestions are echoed in some form within the pages of the Plan itself. In fact, the Plan probably reflects more about the controversy surrounding this subject, and the wish to include all points of view, than the need to focus on balanced and practical management actions. There are numerous reviews of the SSL issue and I suggest that simply referring readers to these documents could condense much of the Plan and, in places where it is necessary to provide detail, this should be placed in an appendix or an on-line bibliography.

I am not completely familiar with the process that was used to generate the Plan but, while I applaud the attempt to engage the breadth of stakeholder opinion, I suggest this Plan is simply Step 1 in a two-step process. The second step should involve substantial re-writing in the light of public comment. Ideally, the Plan should have been drafted by a truly independent group – probably for outside the US system before going to a broader stakeholder group.

The old Recovery Plan, published in 1992, was brief by comparison and perhaps the current plan would benefit from constraining itself to about the same length (around 100 printed pages or about one-third of the length of the current Draft Plan). I suggest that, in the case of a document of this type, its utility and impact is likely to be roughly in inverse proportion to its length.

#### **D. Recovery criteria**

The overall conclusion of the Plan – that there is currently insufficient justification for down-listing the western DPS and that there is a strong case for down-listing the eastern DPS - seems sound. Nevertheless the current system used to define the criteria for de-listing seems to be slightly arbitrary. This is partly founded upon the failure of the PVA (see later) to deliver an appropriate framework. Specific comments on the recovery criteria are:

1. It would be useful to see an analysis for the robustness to a conclusion of a 3% annual increase over 15 year based upon expected survey frequency and estimated survey variance.
2. Achieving an increase may be less important than achieving a target population size, although some combination of the two would perhaps be more satisfactory. It may, for example, be satisfactory to show no significant decline from the current population level over the critical time period (say, 15 years) to demonstrate that the features that led to population decline in the past no longer apply, while retaining the current population size. This would make the criteria for the western DPS logically consistent with the criteria currently being applied to the eastern DPS, since both population segments are currently of similar absolute size.
3. The requirement to show that vital rates are consistent with delisting is very stringent indeed. Since it is really not feasible to measure these with the accuracy and precision required, I suggest that this criterion may never be reached.
4. The need to demonstrate stable or increasing non-pup numbers in 5 of the 7 sub-regions needs to be argued on a metapopulation basis (see late comments on this). The Plan does not do a good job of articulating the dynamics of the SSL metapopulation so it is unclear why this specific criterion has been chosen. In the light of current knowledge and the possibility of long-term natural redistribution of the SSL population, this may not be a biologically defensible criterion.

Concerning the Actions Needed (p5), it would seem sensible to maintain current fishery conservation measures but there needs to be a careful cost-benefit analysis carried out on each measure, with respect to the measures in place for the benefit of the SSL, in order to assess their current relevance. The Plan has not, in general, done these cost-benefit analyses.

As stated in the Plan there is a need to evaluate the effectiveness of fisheries conservation measures although the Plan also acknowledges the practical difficulties with doing so. I would strong advise not adopting the experimental approach



suggested by the NRC (2003)<sup>1</sup>. It is unclear from the Plan what approaches are being considered but the approach adopted by Wolf & Mangel (2004)<sup>2</sup> is likely to be a lot more fruitful. This approach would be congruent with data collected under the proposed scheme to continue monitoring the population.

The implementation costs are very high but it might be more information if this also included a full economic cost model that included the losses to the economy. The reasons for this are that some of the problems associated with the fisheries relate to low profitability in some sectors. There may be scenarios where greater short-term profitability combined with appropriate incentives for the development of alternative investment opportunities will lead to reduced socio-economic dependency upon fishing and, consequently, greater capacity for a natural transition to a more mixed economy. If fisheries are a major factor in determining SSL dynamics, the long-term solution is likely to be through the introduction of economic instruments ensuring reasonable profitability leading to the restructuring of the fisheries, not through increasingly punitive regulation of the fishery itself.

#### **E. The concept of recovery**

The Plan provides its definition of recovery through the development of down-listing criteria. Given the legal structure within which the Plan is constituted it is understandable why this has been done but there the Plan does not give a clear, unambiguous definition of recovery because it seems to be split between a pragmatic approach and one based upon historical precedent.

The concept of recovery implies that the system in question (in this case the ecosystem occupied by the SSL) has some form of static, or equilibrium, state. The Plan is inconsistent in its view of this concept. At the detailed level it makes frequent reference to how the ecosystems occupied by the SSL are likely to respond in complex ways to a wide variety of external drivers, including physical drivers from climate, anthropogenic drivers associated with fisheries, historical harvesting of marine mammals (including SSL themselves), and many other forms of disturbance. In fact, the Plan probably only documents some of the most obvious forms of disturbance to the ecosystem occupied by the SSL. Moreover, these systems will have internal dynamics that will lead to changes in the relative influence and abundance of different components, even without external forcing.

Therefore, while the Plan does consider appropriate levels of complexity, this is not reflected in the grand challenge presented by the Plan – to introduce management that will cause the SSL to “recover”. In reality, the concept of “recovery” makes little sense in dynamic complex systems like ecosystems except if it is understood in terms of a human value-judgement about the most appropriate state for a system. This may be a particularly important consideration for marine ecosystems that probably display much less stable large-scale dynamics than many familiar terrestrial ecosystems.

---

<sup>1</sup> National Research Council 2003. The decline of the Steller sea lion in Alaskan waters: untangling food webs and fishing nets. Washington, D.C.: National Research Council 216 pp.

<sup>2</sup> Wolf, N. and Mangel, M. 2004. Understanding the decline of the Western Alaskan Steller sea lion: assessing the evidence concerning multiple hypotheses. NOAA Contract Report AB133F-02-CN-0085.

It is an established principle in ecology that the longer the time series of data that is available then the more variability will be encountered. The historical time-series for SSL are comparatively short so we can probably assume that we have seen only a small part of the type of variation in population size and distribution that has been present through pre-history. The question about whether the changes in the past 30 years are unprecedented cannot be answered and, consequently, the question about what is the desirable objective for a SSL population size cannot be derived using a meaningful biological argument. Even accountancy exercises showing how many SSL were lost to anthropogenic effects are unlikely to be very helpful because they fail to consider the trade-offs that may have existed between anthropogenic and natural effects on mortality, i.e. some animals removed through anthropogenic effects may have, in other circumstances, been preferentially exposed to natural mortality factors, such as predation.

I suggest that the Plan should have a strong warning up-front which should articulate the following type of concerns:

1. The objectives set for recovery may not be achievable. Even if anthropogenic effects have caused the current status of the SSL, the implication of the current plan is that the ecosystem that once supported larger numbers of this species can be restored and it is unlikely that this is an achievable objective.
2. A Recovery Plan of this type is a single-species management approach to a multi-species problem. Consequently, as our understanding of ecosystem dynamics improves, we will almost certainly find that there are trade-offs between species abundances. *Not all species can be abundant all of the time.* SSLs may be part of this trade-off.
3. "Recovery" is a term invented by managers that expresses a value-judgement they have made about the most appropriate state of a population. It does not necessarily represent the biologically optimal solution, or the solution that is in the best long-term interest of the SSL.

#### **F. Detecting and analysing the causes of decline**

The Plan places a substantial emphasis upon its analysis of the possible causes of the recent decline in the Western Distinct Population Segment (W-DPS). While the biology involved is fascinating and enormous progress has been made during the past 10 years, the objective of the Plan may not be well served by this approach. Structurally, much of this analysis could be consigned to an appendix.

Although the Plan states in several places (especially in relation to the PVA) that knowing what caused the decline in the past is important information, this is only true if (1) there is a reasonable chance of parsing the variance in the sparse historical data between causes and (2) the outcome of this analysis shows that there is a factor that can be actively managed into the future. Whatever the current or historical factors that led to the current population status, only a small number of these can be actively addressed through management. Most, perhaps all, of these have been addressed through precautionary actions during the past 15 years with the introduction of regulations to control the killing of sea lions and for fisheries operating in the vicinity

of sea lion rookeries and haulouts. Apart from additional curbs on fisheries, which could be viewed as punitive given the lack of evidence of effects from fisheries, it is quite difficult to see what more can be done.

The Plan does not do an adequate job of analysing the outcome of previous management actions. It is suggested in numerous places that the current increasing trend in the W-DPS could be a response to these measures. Intuitively, one would consider that it might take 1-2 decades (or SSL generations) before management actions would produce measurable consequences.

The Plan provided an opportunity to repeat retrospective analyses of the population dynamics with the additional information about measures taken during the past 15 years to regulate human activities. Although an element of this was included within the PVA, it is probably one of the biggest disappointments about this Plan that such an analysis has not been done. Fitting age-structured models of the population to current data a Bayesian framework with the added knowledge of the current management measures would have been instructive (see Wolf & Mangel 2004 for an example of this approach to hypothesis testing). It is one of the guiding principles of managing risk through adaptive management that one does not decide upon the next steps to mitigate a hazard until one has fully assessed the outcomes of previous mitigation efforts (see next section).

#### **G. Identification of threats – the need for a risk assessment framework**

The Plan attempts to identify and classify the major threats to the SSL. There is a semantic issue here that concerns the difference between “threats” and “hazards”. The Plan has actually listed “hazards” (see Table IV-1, p 100 and related text) but its analysis attempts to articulate the extent to which these hazards threaten the objectives of the Plan.

The distinction is important in the sense that the Plan should probably contain a strong drive towards risk assessment and risk assessment frameworks usually deal with hazards in advance of threats. In this context, a threat is an integration of the severity and likelihood of a hazard having an effect and characterises the risk associated with a particular hazard. Although risk assessment is implicit within the processes set out in the Plan. The table below is a modified from of a table produced in “Science and Judgment in Risk Assessment” (1994, Commission on Life Sciences, National Academy Press) and it summarises an alternative approach that could provide greater clarity to the process of assessing and then mitigating threats.

Table 1. Risk Assessment Framework. Normally, this would include an adaptive approach to controlling risk. Having carried out Steps 1 and 2, Steps 3-5 are then carried out repeatedly in a cycle of a duration that is determined by the time scale over which the effects of mitigation can be assessed. Note that the risk assessment should, ideally be carried out sequentially but this is rarely the case with difficult problems like that of the SSL when there is incomplete information to fully respond to the challenge of each step in the risk assessment.

**Step 1:** **Hazard Identification** entails identification of the sources of any hazard (in this case hazards that cause mortality or reduced reproductive rate) and the circumstances in

which they are likely to occur, quantification of the concentrations at which they are present in the environment, a description of the specific effects of the hazard, and an evaluation of the conditions under which the effects of the hazards might be expressed in Steller sea lions. Information for this step may be derived from the direct correlation of effects with the presence of a hazard as well as other types of experimental work. This step is common to qualitative and quantitative risk assessment.

- Step 2: Dose-Response Assessment** entails a further evaluation of the conditions under which the effects of the hazard might be manifest in exposed species, with particular emphasis on the quantitative relationship between the dose and the response. This step may include an assessment of variations in response, for example, differences in susceptibility in relation to age, sex, reproductive status and time of year.
- Step 3: Exposure Assessment** involves specifying the population that might be exposed to the hazard, identifying the routes through which exposure can occur, and estimating the characteristics (magnitude, duration, and timing) of the doses that species might receive as a result of their exposure.
- Step 4: Risk Characterization** involves integration of information from the first three steps to develop a qualitative or quantitative estimate of the likelihood that any of the hazards will be realized in exposed species. This is the step in which risk-assessment results are expressed. Risk characterization should also include a full discussion of the uncertainties associated with the estimates of risk.
- Step 5: Mitigation** involves the introduction of measures to reduce or eliminate risk. Often this will involve a process of adaptive management of the risk. Based upon the results of Step 4, appropriate measures may be tested by repeating Steps 3 and 4 after an appropriate interval of time. Depending upon the extent to which mitigation has led to reduction of risk, it may then be appropriate to adjust the mitigation procedures. In circumstances where Step 4 suggests there is little understanding of a hazard and its possible effects it may be appropriate to apply precautionary mitigation.

SSL management has been following the rationale set out within Table 1 for the past 15 years, albeit informally. The Recovery Plan provides an opportunity to formalise this approach by (i) describing the qualitative and quantitative progress made towards filling in the blanks in the risk assessment procedure; (ii) attempting to conduct an assessment of what blanks remain and what prospect there is – especially given budget constraints – of making progress toward filling in those blanks; and (iii) attempting to show how effective current mitigation has been at reducing the apparent risk. It seems that the recovery plan is in need of this or some similar structure.

The need for this is particularly apparent in the section D on the Recovery Action Outline Narrative where there is not connection between the parts of the assessment of threats (sic) and the recommended actions. This means that there is no procedure for prioritising amongst the actions. In fact the Plan had no useful advice about how it should be implemented and it simply left this problem for a future process (see 1.5, p 132). I suggest that this is very unsatisfactory and that it reflects a failure of the basic structure of the Plan.

## **H. Population definitions**

The Plan continues to consider the Steller sea lion in two Distinct Population Segments (DPS), one to the west of Cape Suckling and the other to the east. I appreciate that perhaps little can be done about this because of the ESA designations but I do not think the Plan took a sufficiently critical look at the evidence and theory supporting these divisions.

Much of the recent management strategy has been built upon the assumption that these population segments are, for practical purposes, demographically distinct. Although there may have been some pragmatic reasons for doing this at the time of the ESA designations, the recent evidence based both on DNA and the movement of marked SSL suggests that this may no longer be the most appropriate interpretation. The Plan reviews these studies and appears to support this interpretation within the review (pages 8-11) but then it appears to ignore this information for the remainder of the document and retains an approach to management with the population divided along the original lines.

Even when the decision was made to define two populations, the evidence supporting this came from a single study of mitochondrial DNA. A more parsimonious interpretation of these data was that there was a genetic gradient across the range of the SSL and that geographical distance was likely to be a predictor of the extent of genetic introgression between different regional sub-populations. However, at the time it was published, the data from the Bickham study tended to reinforce jurisdictional issues concerning the research effort and management. It was also reinforced by the observation that, overall, the population from the E-DPS was increasing whereas that from the W-DPS was declining. This was, and remains, a circular argument because the management units were being defined, in part, by the different trajectory of the populations in each region. Thus, the response variable itself (the population trajectory) was being used to help define which response variable should be used. Notwithstanding this, the logic of comparing the biology underlying the different trajectories in these regions, as a natural experiment, was an opportunity that was correctly seized upon but translating this into management units may not be wise.

The current Plan has simply reiterated and reinforced this problem throughout but especially through its renewed implementation of a Population Viability Analysis. A more progressive approach to modelling and managing these populations would be to consider them as a single metapopulation. We know that there have been contrasting dynamics within sub-divisions of both the eastern and western DSPs and the grossing-up across this simplistic east-west division needs to be justified against what may be more natural divisions focussed upon rookeries or other objectively-derived spatial sub-groupings. At very least, there is a need to accompany assessments involving the east-west split with alternative views.

## **I. PVA**

Population Viability Analysis (PVA) is a method that can be used to examine the probability of future population trajectories given by a broad range of scenarios of differing likelihood. It makes the major assumption that future conditions are going to be broadly similar to the range of variation experienced in the past. The application of this variation to the population in different scenarios can then be used to estimate the probability of a population going extinct in different time periods.

The usefulness of PVA is a matter of considerable debate. In statistical terms, its central assumption, that the distributions of values for demographic vital rates are stationary, is very weak. It is possible to introduce functions that relax this assumption

to some extent. These change the mean and variance of the distribution of vital rates, for example involving the introduction of density-dependence, and they may deal with this problem to some extent, but there are very few data for pinnipeds to properly parameterise such functional forms. Consequently, in circumstances where we are data-poor, PVA is not far removed from guesswork.

The Plan describes various implementations of PVA in the past, all of which have been formulated differently and have produced more or less different answers. The PVA produced by Dan Goodman under guidance from members of the Recovery Team appears to miss some of the most important features of the SSL population and it seems to contain some strange choices for parameterisation. The following is a summary of these concerns:

- (1) In particular, the PVA has overlooked much of the internal population structure (see previous section). This ignores most of the metapopulation effects associated with sustainability that, in general, increase the robustness of populations to extinction especially where the hazards tend to be local rather than range-wide. I find the choice of formulation strange mainly because (i) the current formulation will tend to produce a very pessimistic estimate of viability and (ii) since some of the suspected hazards are likely to be local in their effects (e.g. fisheries competition) the loss of this level of detail seems to be a considerable oversight.
- (2) There are problems with the way in which the prior distribution of  $r$  was compiled. Specifically, the analysis appears to give equal weight to the values of  $r$  derived from each of the phases of data collection (defined in Table 1 p 228). This gives greater weight when there was a short time interval between surveys and, as it happens, this includes the period involving the most rapid decline. Again, this will add to the pessimistic view projected by the PVA.
- (3) The analysis makes no attempt to introduce density-dependence. Although Goodman makes a case that this is unnecessary, this comes over a special pleading. In fact, a more process-based implementation of the PVA could use the recent dynamics as part of a density-dependent response. Certainly, there is scope for the PVA to exploit the potential biological interpretations of the serial relationship of the values of  $r$  used in the analysis.
- (4) Even setting apart the issues concerning a lack of acknowledgement of population spatial structure (see (1) above), the population model within the PVA makes no attempt to include the kind of age/stage structure used by Holmes and York. The effects of this are more difficult to predict but they will likely introduce a more complex form of dynamic.

The Recovery Team (or at least some part of it) seems to have agreed with these views (see Appendix 3.A.2. on p220) and has explicitly excluded the PVA from its consideration preferring instead to use a “weight of evidence” approach (although having excluded it they then use it in a number of contexts).

One of the most perplexing aspects of this PVA were the highly contrasting results for the east and west DPSs. A PVA for the E-DPS would self-evidently predict a sustainable population because this population has been increasing since records began. However, Goodman treats this population differently to the W-DSP because he considers its metapopulation structure, at least in the textual account. He does not do

this for the W-DPS. Moreover, the time-series of data for the W-DPS is longer than for the E-DPS and, inevitably, this will introduce a greater level of variability in  $r$  used within the PVA for the W-DPS. I suspect that, if there had been sufficient data for the E-DPS then the PVA for it would have produced similar results to the W-DPS.

This serves to illustrate that the PVA is only as good as the historical data it receives. It is worth pondering that the E-DPS and W-DPS contain a similar number of individuals but the PVA predicts highly contrasting risks of extinction. Contrary to the suggestion of Goodman (p 252) the ecosystems occupied by the E-DPS and the W-DPS are not very different and there are no *a priori* reasons for assuming that the future dynamics of the ecosystem occupied by the E-DPS and the future anthropogenic pressures experienced by this population will be any different from those experienced by the W-DPS. In fact, the outcome of the PVA shows why it is not biologically realistic to continue to consider that these two populations are distinct. If the PVA was re-run using a metapopulation model and using the fine-scale data about population trajectories to populate the priors then my suspicion is that we would see a much more biologically realistic and managerially useful outcome.

In conclusion, the PVA seems to bring a rather confusing aspect to the Recovery Plan and my recommendation would be that it should be excluded altogether. However, reformulated in a more meaningful form, it might be a useful tool, but its output should always be used with caution. Goodman's commentary is both precautionary and bullish about the utility of the PVA but, on balance, it is probably dangerous to include it within the Plan in its current form, because those who have reasons to do so will misuse it.

#### **J. Density dependence**

The Plan could, in general, have done more to distinguish between those effects that are likely to include an element of density-dependence. In fact, this is probably a more useful classification than the one used in Table IV-1 to describe "direct" and "indirect" effects, the definition of which was not clear. Those hazards that are likely to be subject to stronger density-dependent effect – disease, nutritional stress, predation – will most probably have a more benign effect on the population than those with a smaller density-dependent effect - deliberate killing, subsistence harvest, pollution and bycatch.

#### **K. Nutritional stress, species heterogeneity and the "silver spoon" effect**

Throughout the Plan, including the PVA, there is an assumption of homogeneity of quality amongst individuals. This affects many aspects of the current data and the analyses of vulnerabilities. In reality, most of the future viability of the population is likely to be down to a rather small proportion of the population including particularly successful individuals, especially females. There is increasing evidence from a variety of long-lived predators that the population is carried on the shoulders of these few individuals and that their success is partly inherited. There is evidence that this may also be true for pinnipeds since early survival is strongly related to some important genetic indices of genetic heterozygosity.

Consequently, when undertaking the historical analyses of animals lost from the population it is important to consider that animals removed by direct killing did not distinguish between these high quality individuals. Conversely, animals removed through reduced nutrition or predation will have been segregated to some extent into those born with the silver spoon and the losers, which may always have been killer whale food. The silver spoon effect will lead to heterogeneity in individual vulnerabilities that will have consequences for the population dynamics with some parallels to those of a metapopulation structure in that, it would tend to lend stability to the population. Thus, in these circumstances nutritional condition would have to decline a very long way before a population-level effect, at least in terms of its fundamental capacity for increase, would have been observed. This is because there would be a strongly non-linear response to food availability.

The Plan appears to be suggesting that deliberate killing of sea lions was (and may still be) much greater in the past than is shown for current records. This seems a very sensible suggestion and is a conceptual leap forward from the official position being taken by NMFS during the mid-1990s. Indeed, the old Recovery Plan contained almost no reference to this as a source of mortality. One of the greatest problems with deliberate killing, especially when it happens at the breeding colony, is that it is likely to have had a significant impact on the silver spoon females within the population. The long-term impact of this for the intrinsic capacity for population increase are possibly substantial and long-lasting.

The Plan still places a lot of emphasis upon samples collected in the 1970s and 1980s to suggest that there was evidence of nutritional stress. I remain doubtful about the extent to which emphasis has been placed upon this evidence both in this Plan and in previous documents. The samples in question were not collected for the purpose to which they have been put in recent years and the interpretation of their results rarely accounts for the likely biases that exist within these samples. They can be no more than indicative. The reproductive data are particularly susceptible to bias caused by changes in sampling conditions. Although the results may be consistent with the concept of nutritional stress, they are also consistent with a number of other explanations and, in any case, it is unlikely that the population as a whole would have experienced acute nutritional stress – intra-specific competition would probably have quickly separated the winners from the losers and the most likely outcome would have been a greater variance in condition and reproductive success.

#### **L. Defining threats**

There were some inconsistencies and inaccuracies in the section classifying threats (IV B.2-11). Here, an effort was made to classify threats into high, medium and low. However, because of the issue concerning a lack of evidence, the classification of “high” was presented as “potentially high”.

In the section IV B.3 there is a presumption of an effect. For example “*The threat posed by competition with fisheries to sea lion recovery was ranked high based upon the assertion that combined effects of seasonally compressed fishing in sea lion foraging areas and the long term impacts of exploitation of sea lion prey since the*



1960s, resulted in changes in the location, density, distribution, availability, quality, and energy value of the sea lion prey field." I suggest that this statement, which is broadly representative of the tone of this whole section, is quite inaccurate. An "assertion" suggests that there is little doubt whereas there is actually little evidence of a negative impact.

Moreover, drawing attention to the situation illustrated by the grey seal in the North Atlantic, which occupies an ecological niche not dissimilar to that of the SSL in the North Pacific (although it has different physiology and life history but it does have a similarly broad diet involving a substantial proportion of gadids), this species has enjoyed an unprecedented period of population expansion in the face of chronic overfishing of some of the prey species that are central to its diet. I suggest, therefore, that not only is there little evidence to support the idea that the fishery in its current form has been a driving force for the changes suggested here, there is also no substantive evidence that this has had a negative effect on SSL and, based on comparisons with other species, it is possible for active large scale fisheries of SSL prey to have had a neutral or, perhaps, even a positive effect upon the SSL. Certainly, a strong hypothesis for the grey seal population expansion is that they have benefited from the ecosystem changes brought about by heavy fishing.

"Concern" (middle of P103) does not constitute evidence. However, it may justify precautionary actions but it should be made explicit that this is not built upon evidence. It then becomes a societal judgement, not one for science, to make the judgement about the appropriate action.

In this section, there are at least two statements saying that "*adult females and juveniles are likely the most vulnerable age classes*" which occur in the context of the justification for suggesting that the threats from environmental variability and from fisheries are potentially high. It is unclear what the logic is for this statement. I wish to avoid being picky about minor issues but, in this case it may reflect some important problems with some underlying thinking. Although the population trajectory is most vulnerable to adult female survival, adult females are probably the most resilient component of the population. Again, comparative biology suggests that it is the survival of young offspring soon after independence that is most sensitive to food availability and it is males of all age classes that are affected more than females.

There are important inconsistencies in the judgements made at the end of each subsection describing the classification of each threat. The logic applied to each threat in each terminating paragraph is difficult to square with the previous description. In section 3 – competition with fisheries – the high degree of uncertainty is used to justify a precautionary approach, which may be correct. However, in section 6 – Alaska native subsistence harvest – there is a statement indicating that the number of sea lions taken in one region is unknown. This is then followed by a statement that there is low uncertainty associated with the evidence. It does not sound as if there is low uncertainty about this potential threat.

There is a similar difficulty reconciling the scoring of toxic substances as "medium" when there is no substantive evidence of effects or that sea lions are carrying levels of toxic substances likely to lead to this being a threat in the foreseeable future. This

section also contains another statement that adult females and pups are likely to be most vulnerable – why?

With regard to illegal shooting, which is also classified as “low”. There is a statement that the introduction of laws in 1990 has dealt with this threat but this is then followed by a statement that there is still an unknown level of mortality due to shooting. There appears to me to be a level of naivety in the way that this is being assessed. Indeed, if shooting was a major factor that contributed to the initial decline, which I think is now considered a possibility, is it reasonable to think that the behaviour of those doing the shooting will have changed as a result of introducing a new law? I would suggest that, up to a point, what will tend to happen is that it will continue to some extent but that it will become increasingly difficult to gather any evidence, even of an anecdotal nature, that shooting has taken place. Therefore, I don't think the hypothesis that shooting is not a problem has been adequately disproved. I suggest that laws will not stop the shooting of sea lions but the realisation that people may lose their livelihoods as a result of sea lions declining will be a very strong incentive to make them think twice. Ironically, therefore, measures to control fishing effort as an excuse to help the sea lion population may be effective but for the wrong reasons.

In summary, there is inconsistency in how threats are judged. For some threats high levels of uncertainty are used to justify a precautionary approach but in others uncertainty is largely ignored. The classification of the threats appears to successfully reflect preconceptions rather than a balanced assessment of the evidence.

#### **M. Summary and scenarios**

Although the Plan states that it has not used the PVA, this section either leans very heavily upon the PVA or else it is unclear how it draws some of its conclusions about projected scenarios. At the bottom of P9, it emphasises the view that, *if the combined impact of all threats were to continue, in the absence of a substantial density dependent response, the probability that the western DPS of Steller sea lions would go extinct in the next 100 year is relatively high*. However, what it does not do is qualify this by adding that this is an extremely unlikely scenario because the apparent threats will change, the analysis upon which this is based is flawed and because it is unlikely that density-dependence will not have an effect at some point.

It is doubtful whether these scenarios in their current form are useful. Almost everything else is confounded by other factors. Rather than using a PVA, it would be much more informative to use the current data to formally test it against models that will attempt to statistically apportion between different causes (see Wolf & Mangel, NMFS report).

#### **N. Research needs**

Reference was made earlier (section ??) to Section D of the Plan – Recovery Action Outline and Narrative. This recommended a different approach to formulating and prioritising these.

However, even without this it is clear that some of the suggestions for research actions are a high priority while others are part of a wish list. There is a need to define the questions being addressed in each case and the research actions should be classified according to the contribution they will make towards monitoring the effectiveness of mitigation, the development of new understanding and the development of new methods, which itself should be justified in terms of the needs of the previous two classes of research. This whole section seems to be very unsatisfactory as I can see very little compelling justification expressed within this document for funding many of these actions.

## Comments to the SSC Re: SSL Recovery Plan Criteria versus PVA Results

### Problem:

The Draft Recovery Plan choice of recovery criteria lacks coherence when examined in the context of the PVA which is included as appendix 3. The Plan fails to adequately articulate the basis for choosing an approach that is inconsistent with the PVA. The author of the PVA states that the Recovery Team can't logically reject the PVA results, but another group can.

### Recommendation:

The SSC should carefully review the PVA by Dan Goodman in Appendix 3 and comment on:

- a) the initial value judgments (policy)
- b) the estimates of the extraneous influences
- c) the basic premise of the PVA model as reflected in its structure and inputs

### Background:

The concluding paragraph of Dan Goodman's PVA (presented as an appendix to the Draft SSL RP) discusses the implications of rejecting the output of the model and states that the team can not logically do so.

"The Bayesian PVA approach, as employed in this example with the participation of the SSLRT PVA subgroup, provided a structured framework for orderly discussion of the critical elements necessary for reasoned development of many components of the recovery plan. Bayesian analysis and decision theory, as employed here for operationalizing value preferences and analyzing evidence to make decisions to satisfy the standard, constitutes a system with the property of "coherence" (Berger, 1985)...

**In other words there is no logic for improving upon this system if a decision rule has been implemented with correct self-awareness of values and expert opinion, and competent use of modeling and statistics on all the available data.**

This raises the question of what rationale might justify *not* following through with the results of such an analysis. In the present case, the persistence standard, the quasi-extinction definition, the population-wide census data, the estimates of the extraneous influences, and the judgment that the basic PVA model has an 80% probability of being correct, all were developed and/or reviewed by the same group of experts. **Therefore, this group could not logically reject the result without exhibiting inconsistency with their own values and judgment and data. More broadly, rejection of the result raises the possibility that the recovery criterion will not be consistent with the threats assessment section of the Recovery Plan, if the PVA subgroup's expert input to this analysis was consistent with the threats assessment.**

**Some other group, of course, could reject the result if they genuinely disagreed with the initial value judgments (policy) or had a sound basis in defensible expert opinion for disagreeing with the estimates of the extraneous influences or the basic premise of the PVA model.** Presumably there is not much scope for scientific disagreement about the objective data used in the analysis—but if new information were to come to light revising the data, the analysis should be revised accordingly.

Notwithstanding the recognized usefulness of the Bayesian PVA framework for structuring the efforts of the SSLRT PVA subgroup, and notwithstanding the degree of consensus achieved about the inputs, there was some discomfort within the group about the result. This bears closer diagnosis. In particular it would be valuable to elicit whether the discomfort primarily reflected disappointment or primarily disbelief.”

In fact the team did use a different approach to developing a set of biological criteria which did rely to some degree on Goodman’s PVA. A basis for using a “weight of evidence” approach rather than relying on the Goodman’s PVA is presented on page 220, however it is not well articulated in the plan. As such, the alternative criteria selected by the team is vulnerable to challenge as being arbitrary. Goodman has explicitly laid out the grounds for such a challenge on page 249.

### **Discussion:**

As a member of the sub-group that had a role in providing input to the model, i offered comments. However, given my lack of statistical training i didn’t feel comfortable refusing to reach consensus with the rest of the group. Subsequently, i’ve studied Goodman’s documentation of the PVA and have questions about both inputs and model structure. These concerns are set out as follows:

### **Values:**

1- Goodman suggested to the team that 4700 animals (1000 effective females) should be used as the quasi-extinction value. While i have no basis to suggest a different number, i don’t know if the ESA itself defines “extinction” as synonymous with “quasi-extinction.”

2- Goodman recommended a standard of “less than a 1% chance over 100 years” of not becoming “quasi-extinct” as the appropriate standard for down-listing to threatened. Many members of the team seemed to be in general agreement, and found various precedents for accepting that standard. Do those precedents couple the “1% over 100 years” with “quasi-extinction?” Is that degree of precaution necessary, given the ability of the agency will be monitoring the population and can re-list?

### **Estimates:**

1- Goodman made a 1<sup>st</sup> adjustment to the growth rates by period based on estimates of direct kill of SSL by humans. These estimates are generally viewed as minimum estimated values for a number of the sub-sets of kills. Because there was no way to come up with consensus on what the range might be, the team agreed to accept the use of the minimum estimates recognizing that this introduces a conservative bias.

2- Goodman made a 2<sup>nd</sup> adjustment to the growth rates by period based on the “expert knowledge” of the sub-group members. i generally agree that these are reasonable estimates.

### **Structure and Inputs – Growth Rates by Period & Probabilities :**

1- Goodman chose to use 5 historic intervals to create a pool of growth rates upon which the model draws. To me it is very significant that these intervals of a vastly different lengths, ranging from 4 years to 19 years. It seems to me that the likelihood of drawing a rate from the pool

should be weighted by the length of the interval over which it was observed. The simple average of the rates is -4.76%. A weighted average is -3.4%

2- Goodman then uses the adjusted rates to populate the 5 sides of the dice that is at the heart of the model. The simple average of these rates is a negative 0.473%. The weighted average is a positive 0.441%. I fail to understand why the dice has only 5 sides, rather than 46 sides with the 5 growth rates distributed pro-rata to the length of the interval over which they were observed to have occurred.

3- Then comes the Bayesian "voodoo" described on page 239 regarding:

'ESTIMATION OF MODEL PARAMETERS' to "carry out a Bayesian inference, with conventional vague priors, on this basis, for the unknown mean and standard deviation of the underlying normal distribution of the exponential growth rates...

In the actual event, the available sample size of observed population-wide decadal growth rates is small for the SSL, so the parameter uncertainty in the estimation of  $\bar{r}$  and  $\sigma_r$  is large. **Numerical exploration reveals that the uncertainty in  $\bar{r}$  is especially influential on the PVA results...**

Unfortunately, I don't understand what this says...what I suspect it means is that the model isn't so simple as a dice with 5 sides, upon which the adjusted growth rate for the worst period is -9.54%. I suspect this says that this Bayesian inference was used to create a range of values around -9.54% whose mean may no longer be -9.54%, but rather a greater negative value. Whether my guess is correct or not, Goodman seems to point out that the -9.54% value is driver in the model in a way that goes far beyond its simple arithmetic impact.

My concern is reinforced by the statement on page 242: "If this period were omitted from the sample used in the sample for the retrospective analysis, the remaining sample of underlying growth rates would have a definitely positive mean and a much reduced variance." What I take from this is that the influence of the -9.47% on the mean AND on the **variance** are both drivers.

4- In order for my non-Bayesian mind to comprehend the operation of the model, it was necessary to create a simple spreadsheet and run several iterations of various combinations of growth rates over 100 year steps just to grasp the impacts on a non-Bayesian level. What I found was that getting the -9.54% growth rate just 3 times out of 10 possible decades in 100 years, will take the population below the "quasi-extinction" level. So, the big question is "what are the odds of that happening?"

Using some gambling software, I calculated that rolling a 5 sided dice 10 times results in a 32% chance of getting the worst value at least 3 times. By contrast, with a 46 sided dice (upon which the worst value occurs 4 times), rolling it 10 times reduces the odds of getting that worst value 3 times to 5%. So the choice by Goodman not weight the likelihood of drawing a particular growth rates from the pool by length of observed intervals has a big impact.

#### Structure and Inputs – Density Dependence

1- Goodman's model doesn't incorporate density dependence. In his appendix he presents a justification for a scenario in which carrying capacity can go to zero or fluctuate wildly. It's beyond my abilities to track the explanation. However, even if there is no 'floor' to carrying capacity, there is another density dependence scenario that the model doesn't contemplate.

A number of SSL biologists have noted what they suggest are signs that the Eastern SSL DPS may be reaching K. Presumably there are density dependent "ceilings" as well as "floors," above which population growth rates may be suppressed. The initial population of the WDPS in 1959 was 228,000 animals. The adjusted growth rate for the 1<sup>st</sup> 19 year period was 1.69%, well below the theoretical R-max. It seems more than plausible that the growth rate for that period may have been suppressed as a result of the population approaching K. If so, the pool of growth rates in the model may be biased by that case.

2- Goodman makes the case that the model should not include density dependence. He argues (page 262) that SSL dynamics do not look like those of a species liberated from radical over-harvesting such as Antarctic seals. It doesn't seem that the circumstances of SSL are directly analogous to Antarctic seals, so that the lack of an R-max response isn't a compelling argument for the lack of a density dependent "floor." While Goodman makes a plausible case for the absence of density dependence in the lack of strong observed evidence for it, it still seems that the theoretical case is more probable.

#### Structure and Inputs –Alternative Hypotheses

1- Goodman states (page 237) that alternative Hypothesis IV is "undermined by the current genetic evidence probably being inconsistent with a history of such wide population swings." My recollection of the last presentation to the Recovery Team by an expert in SSL genetics, is that the current low population is far above that equating to a genetic bottleneck.

2- Goodman suggests dismissing the 1985-1985 growth rate: "cannot be justified from the present position, without greatly revising the judgment about the probability of alternative hypotheses." He also states that the principle of parsimony argues for retaining it because we have observed it. What we haven't observed is the persistence of this extreme negative growth rate for a decade, yet the model structure uses it for a decade when it is drawn from the pool.

It does not require believing that the 1985-1989 growth rate was a "unique event" that will never happen again to come up with an alternative hypothesis that postulates that it was:

- a) an "uncommon event" that would not occur three times in one century
- b) not likely to persist for a full decade.

3- Goodman states (page 238) that:

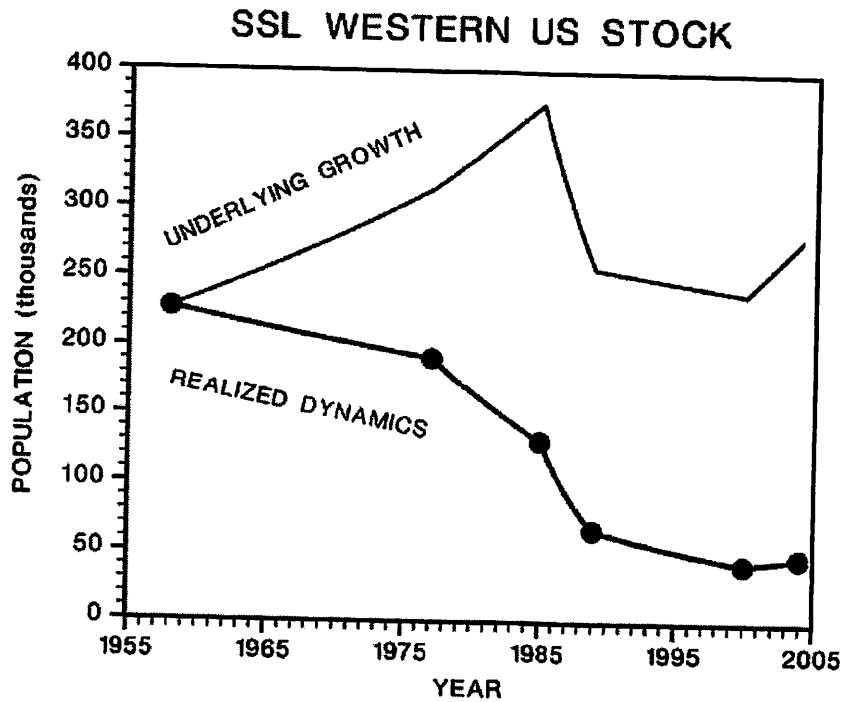
"The PVA subgroup of the SSLRT adopted the value 20% for Y, to discount the risk estimate from the PVA for the probability that the model assumptions used in the PVA are fundamentally wrong."

#### Grounds for Rejection:

Goodman's PVA model forced rigorous thought process upon the sub-group. Though I participated in the sub-group, a discount of 20% on the basic model, its inputs and values, does not capture the various concerns laid out above.

#### Retrospective:

There is one figure in the PVA document (Fig. 2, page 269) that is very thought provoking.



It shows that had we simply avoided the direct human kills of SSL during the last 50 years, and had imposed fishing restrictions at the beginning of the fishery, we would have in excess of 250,000 SSL today, in spite of a 4 year -9.54% growth rate.

If you started from the peak population in the above figure (about 370,000), it would take 45 years of a -9.54 growth rate to bring the population down to the quasi-extinction level used in the PVA.

If you started from the initial population in the above figure (about 228,000), it would take 39 years of a -9.54 growth rate to bring the population down to the quasi-extinction level used in the PVA.

Yet, using the same basic assumptions (that we have corrected for direct kills and fishing effects in the future), the basic PVA (page 242) comes up with a 37.23% probability of SSL going to quasi-extinction within 100 years starting from the present population.

How realistic is that result outside the operation of the model?

As a layperson participating in the sub-group, i attempted to articulate these concerns. Though the authour of the PVA states that the sub-group can not logically reject the biological criteria resulting from the PVA, the SSC should consider the foregoing points in its review of the Goodman PVA and its relationship to the biological criteria adopted by the Recovery Team.

dave fraser



B7 John Gauvin PT  
6-8-06 8:27a

*H&G Environmental Workgroup  
2104 SW 170<sup>th</sup> Street  
Burien, WA 98166  
Phone (206) 660-0359  
Fax (206) 243-7686*

Ms. Sue Salveson,  
Assistant Regional Administrator  
Sustainable Fisheries, AK Region, NMFS  
P.O Box 21668  
Juneau, AK 99802  
May 8, 2006

RE: EFH-HAPC-PR

Dear Ms Salveson:

These comments are prepared on behalf of the H&G Environment Workgroup. The Workgroup was created to develop viable solutions to environmental issues affecting the bottom trawl fisheries in Federal waters fisheries off Alaska. My comments specific to the Aleutian Islands Habitat Conservation Area, however, represent the entire trawl catcher vessel and catcher processing sectors that depends on the Aleutian Islands for cod, rockfish, and Atka mackerel fishing.

**Overall comments on the EFH EIS and proposed rule:**

While most of our comments deal with a few small adjustments to the Aleutian Islands "open area" for bottom trawling (AKA "AIHCA"), we want NMFS to know that we concur with its overall finding in the EFH EIS that effects of fishing overall were not deemed to be more than minimal. Therefore, under *§600.815*, the Council was not required to propose new management measures under EFH. We feel the Council's final recommendations reflect that overall determination and that the Council's proposed measures are in keeping with the Council's policy of implementing precautionary conservation for Alaska fisheries even when no action is required.

We also want NMFS to know that we continue to support the "open area" for the Aleutian Islands bottom trawl fisheries. The specific reasons for our support, however, is somewhat different from the reasons proposed by the original advocates for the AI open area. We feel that due to the unique aspects of the very patchy fishing areas in the Aleutian Islands, an open area approach makes sense. Unlike the broad and relatively featureless Bering Sea shelf where fish aggregations follow temperature and food dispersal patterns driven by currents across the shelf, fish aggregations in the Aleutian Islands appear to be associated with predictable patterns of water flows through the passes. Due to this and the fact that the high-relief and rocky seafloor of the Aleutian Chain essentially determines where trawling will be practical, trawling has occurred in

the same general areas since foreign fishing started in the 1940s and 1950s. Thus the "open area" approach for management of trawl fisheries of the Aleutian Islands is a practicable means of protecting fragile coral habitats in the Aleutian Islands that have not been subjected to fishing with trawls.

But the enormous difference between the Aleutian Islands and the Bering Sea shelf must be recognized. The open area approach is thus uniquely suited to the Aleutian Islands but not at all practical or effective in terms of habitat protection for the sand/mud seafloor of the Bering Sea shelf.

**Recommended adjustments to the Aleutian Islands Habitat Conservation Area (AIHCS):**

In the development of the AIHCA, I was asked by the Council to put together a composite of catcher processor and catcher vessel historical fishing areas based on information provided to me by captains and operations personnel covering the entire catcher vessel and catcher processor sectors that trawl for cod, rockfish, and Atka mackerel in the Aleutian Islands. This approach to delineating historically fished areas became necessary when the trawl industry learned that due to the patchy nature of the fishing areas and the relatively small number of vessels that fish the Western and Central Aleutian Islands sub-areas, NMFS' efforts to draw 10 by 10 kilometer boxes around observed haulback locations did not accurately reflect the historically fished areas. This was particularly true further west where fishing is more spread out and the number of vessels capable of operating with scant shoreside infrastructure is much smaller. In recognition of this, the Council provided the affected trawl industry the opportunity to identify historically-important fishing locations with actual tow path records from vessel GPS plotter data.

The value of using this more precise spatial information is obvious. But confidentiality concerns among fishermen precluded any seamless exchange of plotter data between fishermen. Hence I was "volunteered" to meet with fishermen and fishing companies to compile their tow tracks to the extent possible given the fast turnaround dictated by the EFH litigation settlement. So the goal was to come up with one chart depicting fished areas that would be transferred to NMFS' GIS specialist, John Olson. Mr. Olson would then add and subtract areas from the original 10 by 10 kilometer blocks (the original blocks determined from observed haulback locations) based on the blocks where industry data showed historical fishing effort.

As one might guess, my ability to check over my work was limited due to the pressing time constraint of a final Council decision in February of 2005 and the fact that many of the affected fishermen were still fishing at the time. For the most part, captains were only available via emails to vessels and satellite phone calls. So knowing that I probably made some errors in the compilation of all this information, this winter I requested that Mr. Olson to provide me with a "BETA" version of the proposed AI "open area". Then with John Olson's help as well as assistance from the GPS plotter companies, we were able to get the lines delineating the "open area" onto vessel plotters so captains could review the

proposed "open area" during fishing operations this spring. The technical comments I provide below are based on this more thorough review of the AI open area delineations.

Overall, it appears that the AIHCA is mostly correct and only two adjustments are needed. The affected catcher vessel and catcher processor captains feel, however, that these modifications are necessary to accurately capture the intent of the Council to leave open the fishing areas that have been historically important to the bottom trawl fisheries of the Aleutian Islands while preventing fishing of new grounds that have fragile coral habitats.

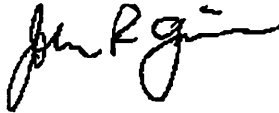
So we recommend two adjustments to the AIHCA. The first is that we feel approximately five blocks need to be added to the existing proposed open area just north of Agattu. These new blocks would add only two blocks on the western edge of the Agattu "open area" and three one-half size blocks to the south edge of the western portion of the areas (please see our separate Attachment called "Appendix 1 Agattu"). The area we would like to be added is delineated by the thin red lines in Appendix 1 and arrows are used to point to the area. From my perspective, it is now clear from the feedback I have received from the fishery that I omitted this area which is critical to the tows that haul back in east of this area that would be added. While the Council did not specifically consider these areas at their final decision point because I failed to include them in the information passed on to NMFS' GIS specialist, from the tow path information supplied to me by the captains of the Sea Freeze Alaska, Seafisher, and Ocean Peace, and from feedback from several catcher vessel owners, these areas are clearly part of the tows that are hauled back in the adjacent qualifying blocks to the east in the existing "open area" around Agattu. Attachment 1 is a zoomed-in figure depicting a portion of a larger chart I originally submitted to NMFS to reflect the blocks we requested be added to the areas determined from haulback data. From this one can see that I overlooked this area. The red dots on the chart indicate areas that we wanted added to the open area. For these areas, I had seen plotter data and hence verified that they were part of tow paths important to the fishery.

The chart in Appendix 1 does not show red dots for the area we are asking to be included to the proposed open area. This means that I mistakenly omitted a fished area. It is probable that at the time I thought the tracks I saw in the area were included in the original "qualified" blocks (shown in green) when it is now apparent that the tracks actually fall to the west and south of that area.

The second modification we recommend is to remove three full blocks near Buldir that were not ones with historical catch from NMFS' observer data and were not ones that we requested to be added to the open area. The arrows in Attachment 2 indicate these blocks. One can see that I did not place red dots on these blocks. According to feedback from skippers this spring, these blocks have never been trawled. Captains with a great deal of experience fishing around Buldir feel these blocks are very rough bottom where Pacific Ocean Perch and other rockfish are likely to be found but they are not really trawlable. Hence these blocks could well be the kind of seafloor that the Council's EFH action sought to close to bottom trawling. From our perspective, because these blocks do not meet the intent of the Council's open area, they should be deleted from the open area.

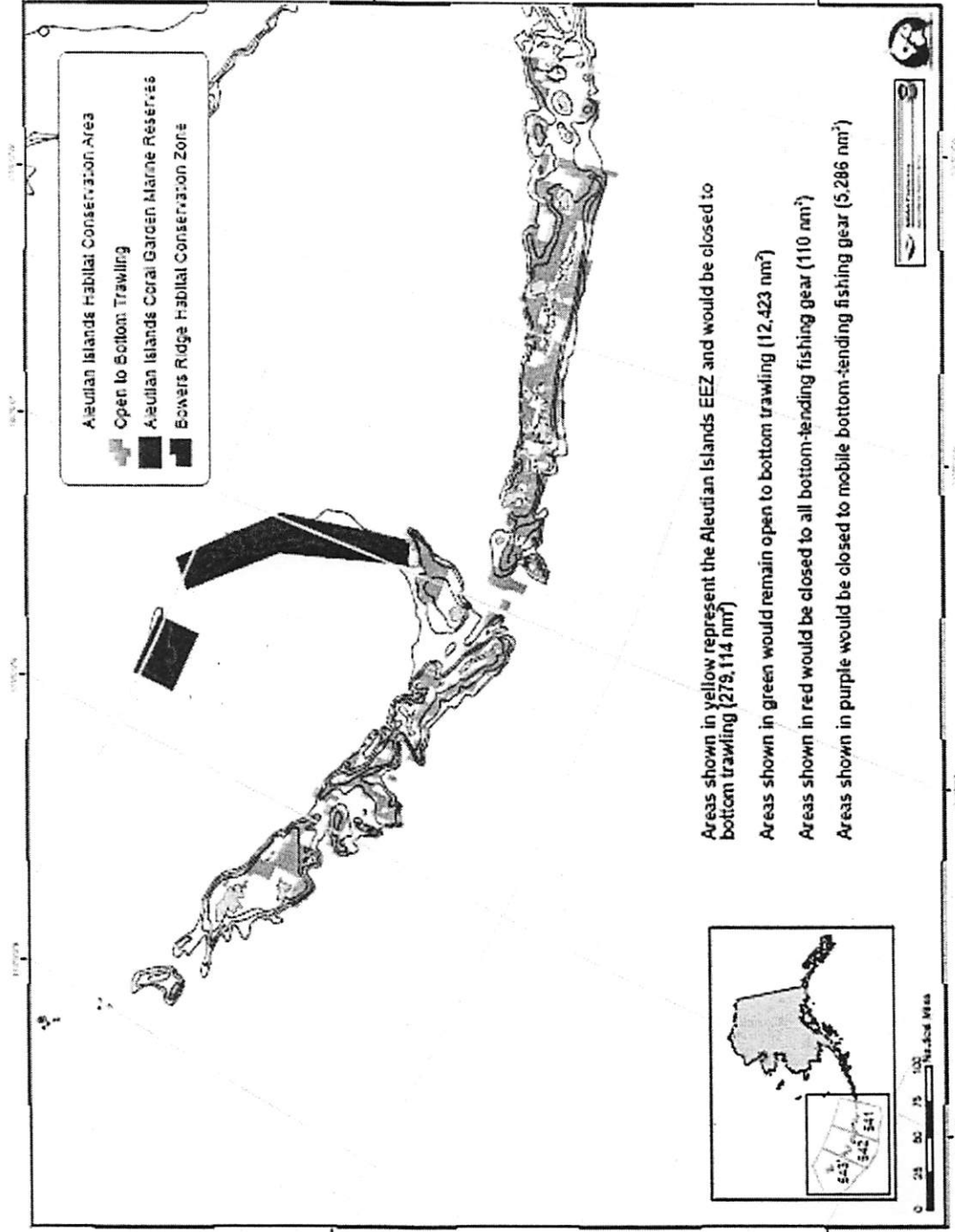
Key to our continuing support for the open area in the Aleutian Islands is the sentiment that the AIHCA should be adjusted to capture the original intent of the Council's action. That intent was to leave open the important fishing areas for the bottom trawl fishery. We appreciate the agency's consideration of our comments and we hope that these small but important adjustments to the AIHCA will be made as part of the determination made to finalize the measures in the proposed rule with our recommended modifications. Thanks in advance for considering our comments and please feel free to give me a call if you have questions or need additional information.

Sincerely,

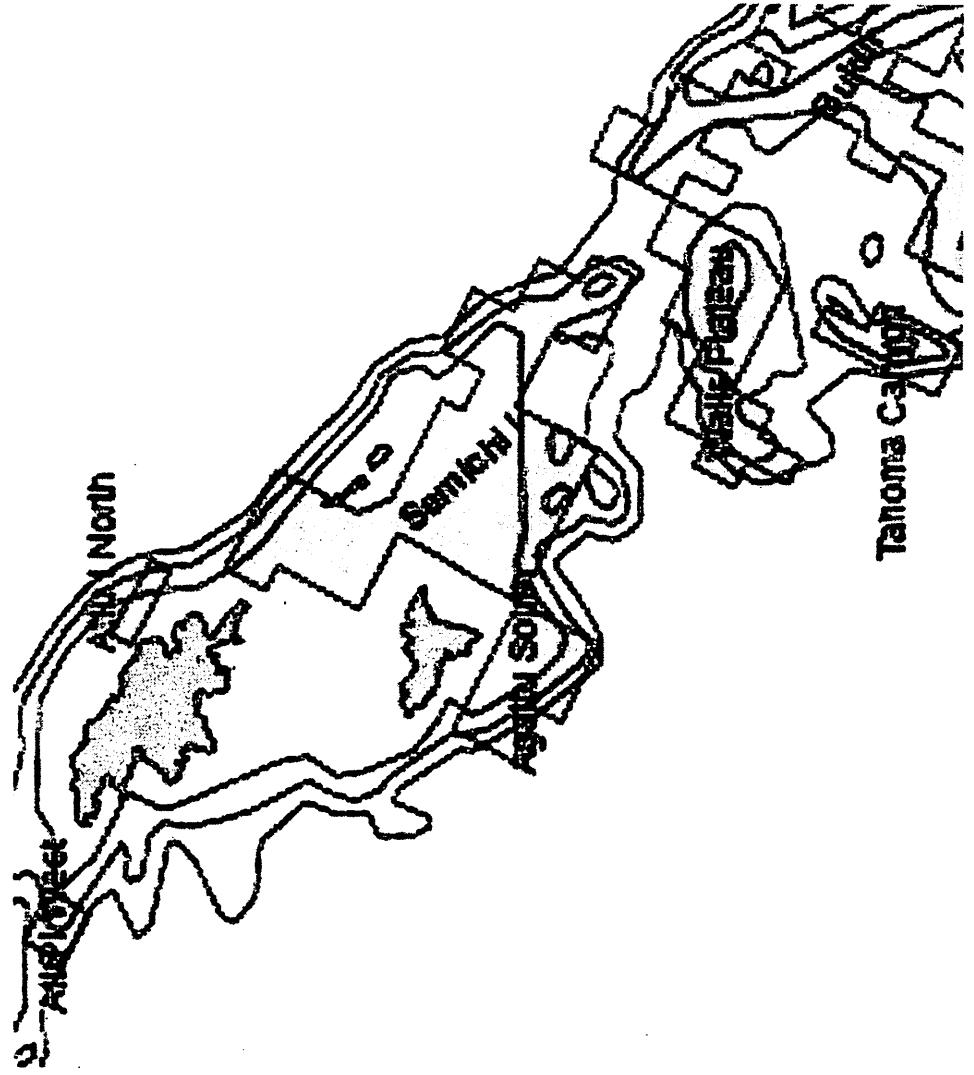
A handwritten signature in black ink, appearing to read "John R. Gauvin". The signature is fluid and cursive, with the first name "John" being the most prominent part.

John R. Gauvin

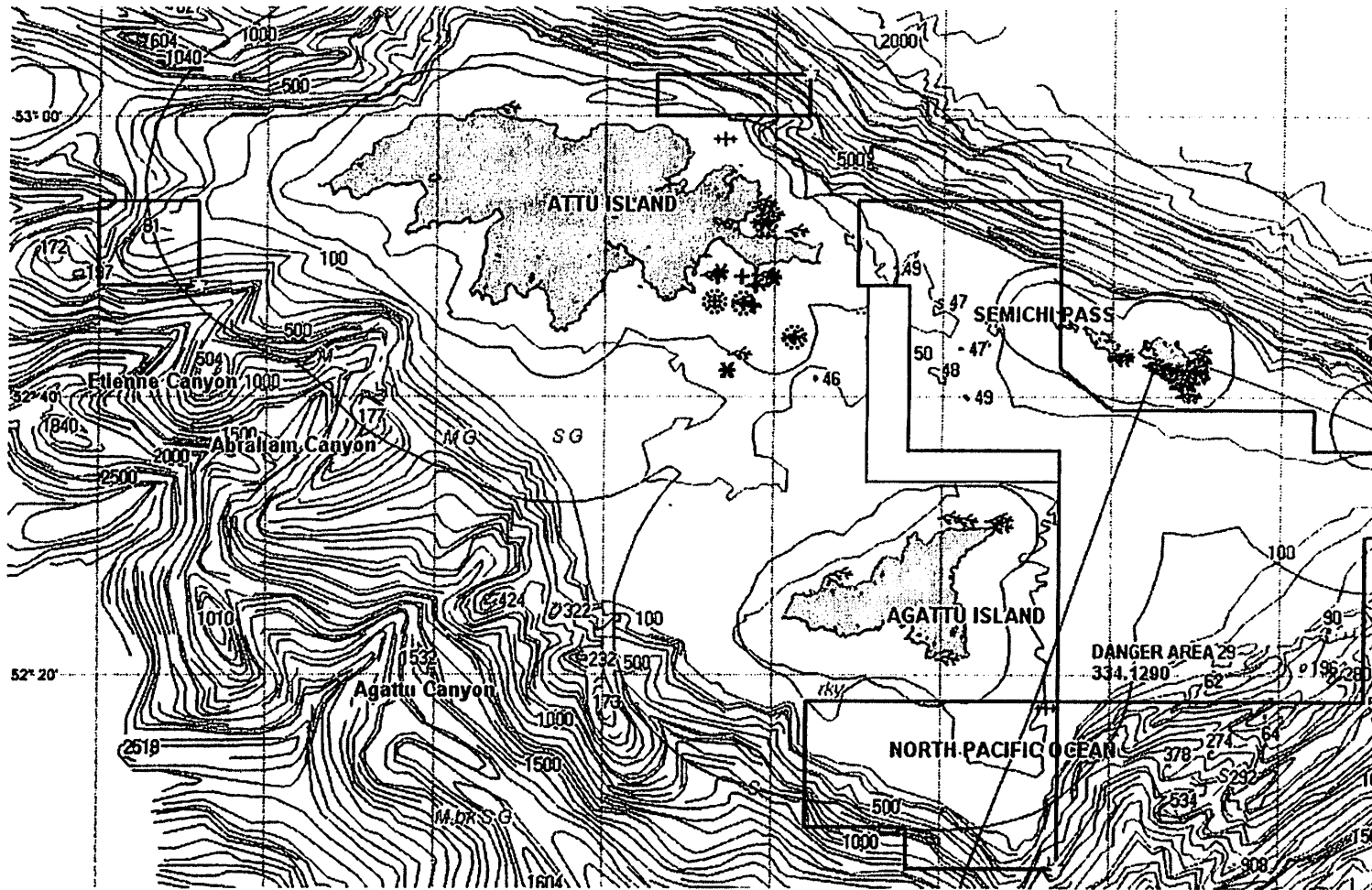
# Habitat Protection Measures in the Aleutian Islands



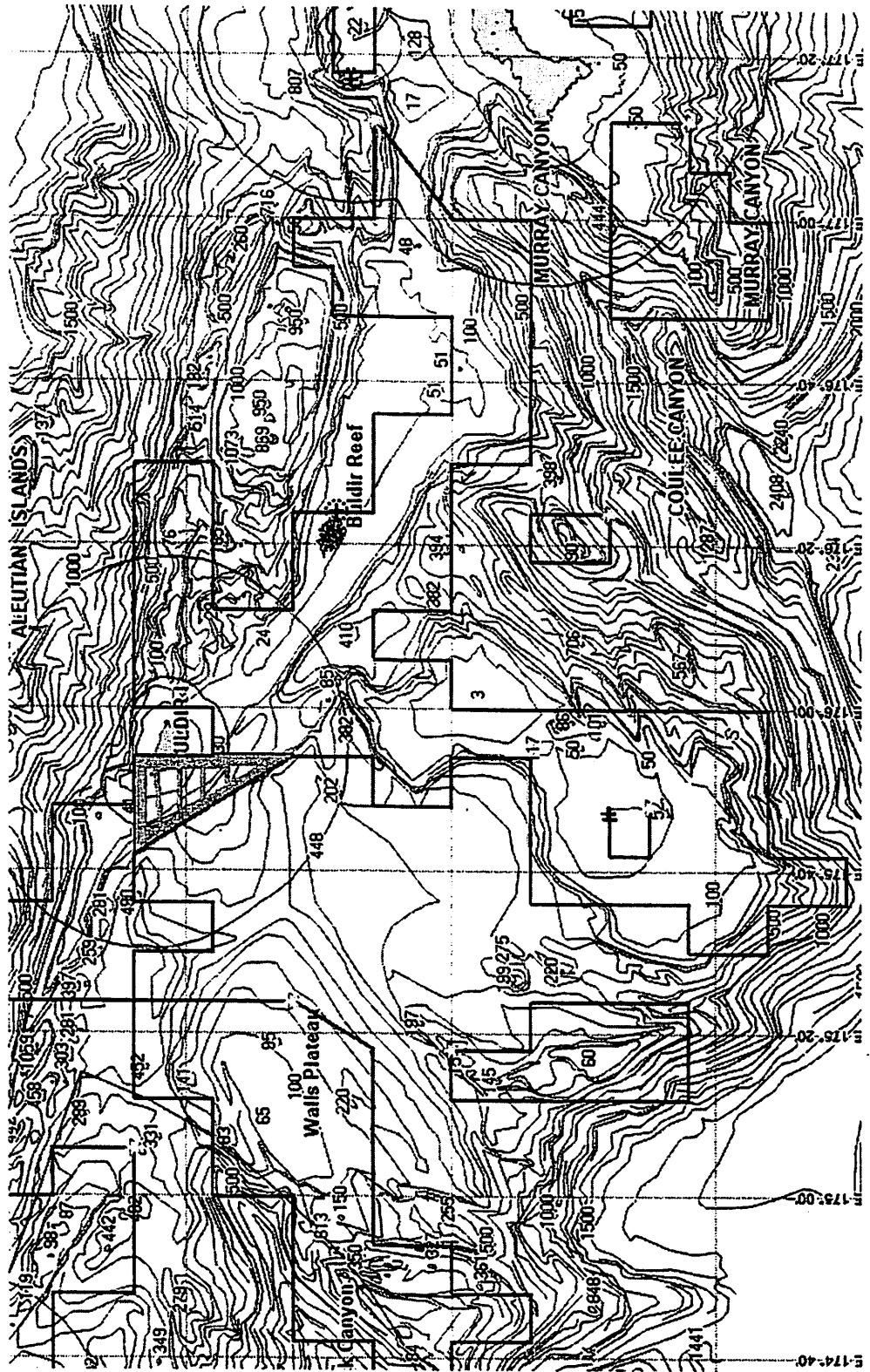
# Aleutians: Attu to Buldir



# Historically fished area to be added to “BT open area” at Agattu



Un-fished area at Buldir that should be removed from "BT open area"





B7 John Gauvin PT  
6-8-06 8:27A



May 8<sup>th</sup>, 2006

Sue Salveson,  
Assistant Regional Administrator  
Sustainable Fisheries Division, AK Region, NMFS  
P.O. Box 21668  
Juneau, AK 99802

Dear Ms Salveson,

Attention: Records Officer - Re: EFH Proposed Rule

Adak Fisheries generally concurs with the Council's overall action on EFH. Based on the findings of the EIS that the effects of fishing overall were not deemed to be more than minimal, under *S600.815* the Council was not required to propose new management measures under EFH. However, the Council's final recommendations as reflected in the proposed rule are consistent with the Council's policy of implementing precautionary conservation for Alaska fisheries even when no action was required.

The unique nature of Aleutian Islands habitat and its apparent high coral diversity, highly repetitive fishing patterns, and extensive areas that have not been trawled is quite very different from the Bering Sea and Gulf of Alaska. The EIS analysis justified status quo for the Bering Sea and Gulf of Alaska, however a Alt. 5B approach for the Aleutian Islands provides additional protection of un-impacted areas with fragile deep-water coral reef habitats in that area.

We would like to offer a number of specific comments:

**Comment # 1**

**The Council selected the best option under Alt. 5B:**

The Council considered several variations of Alt. 5B. The Alt. 5B option adopted by the Council best captures the habitat protection intent of the original Alt. 5B, which was to constrain the bottom trawl fishery to its historic "footprint." The other options considered under Alt. 5B suffered from two problems that cause them to not capture the "footprint of the fishery":

- Haulback position data from the observer data alone only reflected where a haul was retrieved, not necessarily where fishing actually occurred - by contrast Option 3 areas were based on a combination of observer data, VMS data, and plotter/logbook data.

- Only a limited set observer data from recent years were used – by contrast Option 3 used data from 1990 through 2004, thus more realistically capturing the “footprint” of the fishery.

Using data taken directly from the plotters of the fishing fleet provided the best available data for delineating the historically fished area.

- It avoided incorporating un-fished areas into the open area.
- It minimized the economic impacts that the other options would have created through the omission of important historically fished areas.
- It avoided forced redistribution of effort which would have unpredictable consequences.

The other 5B options not adopted by the Council included a number of “bells and whistles” dealing with TAC reductions, coral bycatch caps, and increased observer coverage. The Council made the appropriate decision not to include these.

#### ***1- TAC reduction component:***

- The reduction in the open area used to derive the percentage in the reduction of the TAC was in part based on erroneous methods of identifying the portion of the historically fished area that contains high abundance of coral.
- TAC should be adjusted up or down based on fluctuations in the biomass of the species in question and exploitation objectives based on the life history characteristics of the species that supports the fishery.
- The TAC reductions proposed would have created economic impacts with no benefits to coral or the populations in question.

#### ***2- Coral Bycatch Cap component:***

- Coral and sponge population levels are completely unknown so the cap would have been set arbitrarily.
- Extrapolations to scale the amounts in the samples to the catch would have been inherently biased.
- Setting and tracking coral or sponge cap would be extremely complicated and tracking would have demanded whole haul sampling
- Because corals were grouped in the observer data with bryozoans the data to sort out what portion of that catch was actually bryozoans is not available.
- Observers are already fully occupied with their assigned duties and the time needed to count and classify corals and sponges would have further taken time away from the duties for which observer coverage was intended.
- Coral and sponge caps would have needed to be apportioned between different trawl target fisheries to prevent one fishery from shutting down another.
- NMFS expressed concern over its ability to track such caps during the fishing season in the EIS (page 4-239).
- Full retention for all gears would be needed to avoid re-counting coral that had been previously discarded.

**Adak Fisheries LLC**

100 Supply Road, Adak, Alaska 99546 USA Tel 907 592 4366 Fax 907 592 4241

Email [Adak@adakfisheries.com](mailto:Adak@adakfisheries.com)

**3- Observer coverage requirements:**

The option to include 100% observer coverage would have imposed a significant cost burden on 30% vessels and vessels under 60'.

The version of 5B adopted by the Council is superior and practicable because it removed the unworkable and impracticable elements of other options: coral bycatch caps, TAC reductions, arbitrary future reductions in the open area, and 100% observer coverage for vessels currently at lower levels of coverage.

**Comment # 2**

**The detailed description of the Semichi area in Table 24 doesn't not reflect the intent of Alt. 5B**

Due to the patchy nature of the fishing areas in the AI and the relatively small number of vessels that fish the area, observed haulback locations in the observer data do not accurately reflect the historically fished areas. The Council recognized this in adopting Option 3 of Alt. 5B. To deal with this problem it was necessary to supplement information to more accurately delineate historically-important fishing locations using plotter data records from fishers. Confidentiality concerns among fishermen precluded any smooth exchange of plotter data showing exact tow paths among fishermen. John Gauvin was selected as a neutral party to meet with interested fishers and evaluate their exact tow tracks and catch records to come up with a composite of the fished areas.

As a result of the time constraint of final Council decision in February of 2005 and the fact that many of the affected fishermen were working in the trawl fisheries impacted by the EFH measures being developed, the ability to do a thorough and inclusive job of compiling this information was limited. With the publication of the coordinates of the open areas in the Federal Register, the fleet has been able to check over the open areas.

One area where the lines don't accurately capture the fishing patters is in the "Semichi block" to the northeast of Agattu Island. A review of cod haul locations from NORPAC observer data shows and number of hauls where the retrieval location is either just outside, on the line, or just inside the coordinates of the lines running E-W from 52.36N/173.54E to 52.36N/173.36E and N-S from 52.36N/173.36E to 52.48N/173.36E. These lines should be adjusted a couple miles to the south and west to accommodate the difference between haulback locations and tow tracks.

173.32	52.34		173.44	52.37
173.32	52.37		173.45	52.34
173.33	52.36		173.45	52.34
173.35	52.38		173.45	52.37
173.36	52.37		173.45	52.37
173.39	52.35		173.47	52.37
173.4	52.37		173.47	52.37
173.41	52.35		173.49	52.37
173.41	52.35		173.5	52.37
173.42	52.34		173.51	52.36
173.43	52.36		173.53	52.37
173.44	52.36		173.54	52.34

**Adak Fisheries LLC**

100 Supply Road, Adak, Alaska 99546 USA Tel 907 592 4366 Fax 907 592 4241

Email Adak@adakfisheries.com

**Comment # 3**

**Pelagic trawl definition**

On page 14472 of the FR notice it states:

*"Under this proposed rule, pelagic trawl gear used for directed fishing for pollock would be allowed..only in an off-bottom mode based on the trawl performance standard..."*

However, earlier on the same page it states:

*"Pelagic trawl gear also has been known to contact the bottom...(but) typically does not contact the bottom as aggressively as a bottom trawl."*

On page 14475 of the FR notice it states:

*"This revision would ensure that all directed fishing for pollock is conducted with pelagic gear in an off-bottom mode..."*

Then later on the same page it states:

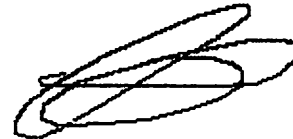
*"all directed fishing for pollock would be conducted with pelagic trawl gear that must meet the trawl performance standard and that would be less likely to impact bottom habitat."*

The performance standard does not guarantee that pelagic trawls are fished "off bottom". The performance standard is intended to assure that they are operated in a fashion "less likely to impact bottom habitat."

While the proposed regulations do not impose a new requirement that pelagic trawls be operated in an off bottom mode, the ambiguity of the preamble may raise expectations that such a requirement is being imposed.

In its evaluation of the impacts of different gear types, the EFH EIS made it clear that pelagic trawls are frequently operated in contact with bottom. However, the analysis concluded that the impact from fishing pelagic trawls in contact with bottom is not more than minimal and not more than temporary with regard to the productivity of EFH.

Sincerely,



dave fraser



# Marine Conservation Alliance

*promoting sustainable fisheries to feed the world*

P O Box 20676  
Juneau, AK 99802  
(907) 523-0731  
(206) 260-3639 fax

137 Greg Balough PT  
Thorn Smith 9:10a  
6-8.06

- Adak Fisheries, LLC
- Alyeska Seafoods
- Alaska Crab Coalition
- Alaska Druggers Association
- Alaska Groundfish Data Bank
- Alaskan Leader Fisheries
- Alaska Pacific Seafoods
- Aleutian Islands Brown Crab Coalition
- Aleutian Pribilof Island Community Development Association  
Akutun, Aka, False Pass, Nelson Lagoon, Nikolai, St. George
- At-Sea Processors Association
- Bristol Bay Economic Development Corp.  
Aleknagik, Clark's Point, Dillingham, Egagak, Ekuk, Ekwook, King Salmon, Levelock, Manokotak, Nakeek, Pilot Point, Port Heiden, Portage Creek, South Nakeek, Topiak, Twin Hills, Ugashik
- Central Bering Sea Fishermen's Association  
St. Paul
- City of Unalaska
- Coastal Villages Region Fund  
Chefomak, Chevak, Eek, Goodnews Bay, Hooper Bay, Kipruk, Kongiganak, Kwillingook, Mekoryuk, Nipakak, Nipakook, Newak, Nightruts, Ocaserville, Platinum, Quinhagak, Scammon Bay, Toksook Bay, Tututuliak, Tununak
- Groundfish Forum
- High Seas Catchers Cooperative
- Icicle Seafoods
- McCarty and Associates
- Mid-Water Trawlers Cooperative
- Mothering Group  
PV Excellence  
PV Ocean Phoenix  
PV Golden Alaska
- North Pacific Longline Association
- Norton Sound Economic Development Corporation  
Brevig Mission, Diomede, Elm, Gambell, Golovin, Koyuk, Nome, Saint Michael, Savoonga, Shaktoolik, Shoboin, Teller, Unalakleet, Wales, White Mountain
- Pacific Seafood Processors Association  
Alaska General Seafoods  
Alyeska Seafoods, Inc.  
Golden Alaska Seafoods, Inc.  
Peter Pan Seafoods, Inc.  
Premier Pacific Seafoods, Inc.  
Supreme Alaska Seafoods, Inc.  
Unisea Inc.  
Wards Cove Packing Company  
Western Alaska Fisheries, Inc.  
Westward Seafoods, Inc.
- Prowler Fisheries
- Trident Seafoods Corp.
- United Catcher Boats  
Akutun Catcher Vessel Assoc.  
Arctic Enterprise Assoc.  
Northern Victor Fleet  
Peter Pan Fleet Cooperative  
Unalaska Co-op  
Unisea Fleet Cooperative  
Westward Fleet Cooperative
- U.S. Seafoods
- Waterfront Associates
- Western Alaska Fisheries, Inc.
- Yukon Delta Fisheries Development Association  
Alakanuk, Emmonak, Grayling, Kotlik, Mountain Village, Nunam Iqua

Press Release  
FOR IMMEDIATE RELEASE

June 7, 2006

Contact:  
David Benton, Executive Director, Marine Conservation Alliance, (907) 523-0731

## NEW GUIDES HELP IDENTIFY ALASKA SEABIRDS MCA Endorses USFWS Effort to Expand "Wheelhouse Guide" Series

Three new Alaska Seabird Guides will help fishermen and fishery observers correctly identify 51 different species of seabirds to help avoid conflicts with fisheries, expanding an effort jointly started by MCA and federal officials.

Thousands of the colored and laminated guides produced by the US Fish and Wildlife Service (USFWS) will be distributed to skippers that operate fishing vessels off Alaska and to federal observers who monitor those fisheries.

"The Marine Conservation Alliance is proud to endorse this effort with the Fish and Wildlife Service to inform fishermen about species that need to be protected from interactions with fisheries," said Thorn Smith, a board member of MCA.

"With the earlier guides on endangered seabirds and whales, these are the fifth, sixth, and seventh in a growing series of guides to expand the knowledge and raise the consciousness of fishermen about the environment in which we live and work," Smith said.

The other guides in the series produced jointly by MCA and the National Oceanic and Atmospheric Administration provided identification on the endangered Short Tailed Albatross and North Pacific Right Whale, and were produced in both English and Russian editions for delivery to fishing fleets on both sides of the Bering Sea.

The new seabird guides have photos of the various species such as gulls, cormorants, kittiwakes, loons, eiders, puffins and more with specific information to help properly identify them, including a life size outline of each species' beak. The earlier albatross and whale guide includes photos of the species of concern and information on how to differentiate them from other species.

“This series of wheelhouse guides is a remarkable effort by industry, government and the environmental community,” said David Benton, Executive Director of the MCA. “They have been popular with fishermen and effective in focusing their attention on these important environmental issues.”

The newest Alaska Seabird Guides were unveiled today at a meeting of the North Pacific Fishery Management Council in Kodiak, Alaska.

The Juneau-based Marine Conservation Alliance is a coalition of seafood processors, harvesters, support industries and coastal communities that are active in Alaska fisheries. The MCA represents approximately 75 percent of the participants in Alaska shellfish and groundfish fisheries and promotes science based conservation measures to ensure sustainable fisheries in Alaska.

[www.marineconservationalliance.org](http://www.marineconservationalliance.org)

##

For more information contact:

Thorn Smith, North Pacific Longline Association [Thorndog@npla.net](mailto:Thorndog@npla.net)

Greg Balogh, USFWS, [Greg\\_Balogh@fws.gov](mailto:Greg_Balogh@fws.gov)

David Benton, Executive Director, MCA [Davebentonmca@ak.net](mailto:Davebentonmca@ak.net)



B7 Greg Balough PT  
Thorn Smith 9:10a  
6-8-06

# Alaskan Seabirds

Match Numbered Photos With Text On Reverse



*Common Eider*



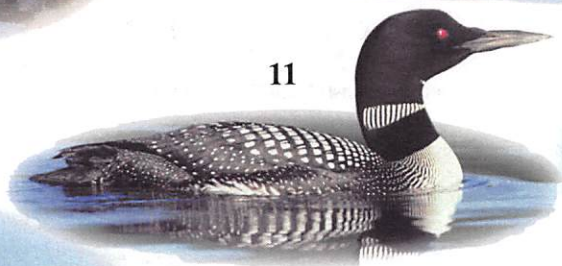
*King Eider*



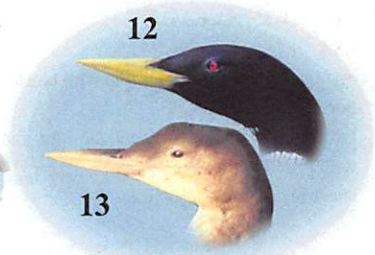
*Steller's Eider*



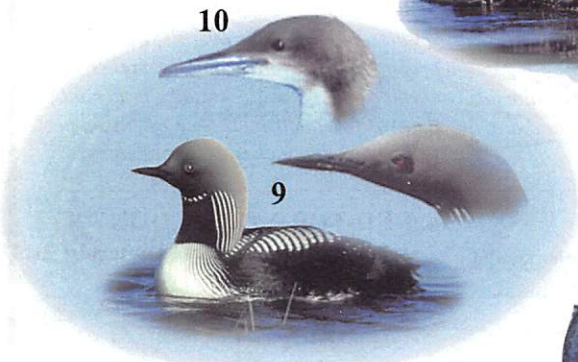
*Spectacled Eider*



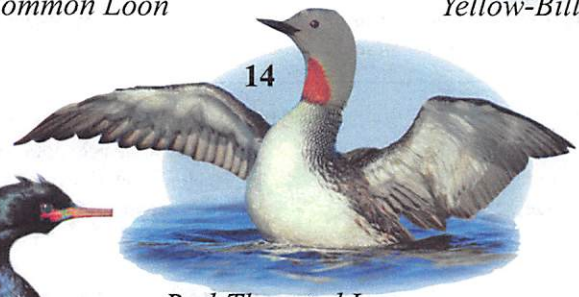
*Common Loon*



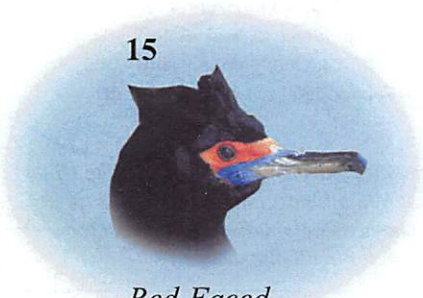
*Yellow-Billed Loon*



*Pacific Loon*



*Red-Throated Loon*



*Red-Faced Cormorant*



*Pelagic Cormorant*



*Double-Crested Cormorant*



# Identification of Live Birds

Please match numbers with photos on front.

Bill outlines are life-sized for positive identification. Key identifiers in **bold**.

## 1. COMMON EIDER – M/S

- head greenish on back, bill orange-yellow
- forehead sloping, crown black
- back white, sides black, upperparts and breast white

## 3. KING EIDER – M/S

- **bill bright orange** 1, 2 Common Eider
- crown and rear of head pale blue, face white
- black wings with white patches, breast and neck white

## 5. STELLER'S EIDER – M/S

- ESA status: **Threatened**
- head with greenish tufts
  - head mostly white, black eye patch, chin and collar 3 King Eider
  - body white/tan, with black on wings and tail
  - belly brown and black/white shoulders

## 7. SPECTACLED EIDER – M/S

- ESA status: **Threatened**
- eye patches are **distinct - white with black border**
  - bill orange-yellow, forehead sloping, face with green patches
  - chest black and back white 4 King Eider

## 2. COMMON EIDER – F/S/W

- forehead sloping
- body rust to gray overall 9, 10 Pacific Loon
- fine black barring on all feather

## 4. KING EIDER – F/S/W

- head small and rounded
- shoulders with crescent markings
- body gray-brown, plumage with fine barring

## 6. STELLER'S EIDER – F/S/W

- ESA status: **Threatened** 11 Common Loon
- head squarish with pale eye ring and unfeathered upper bill
  - body small, very dark
  - white under wing distinguishes this from other eiders

## 8. SPECTACLED EIDER – F/S/W

- ESA status: **Threatened**
- eye patch **visible, distinct from other female eiders** 12, 13 Yellow-Billed Loon
  - upper bill with extensive feathering
  - body brown with barred pattern 14 Red-Throated Loon

## 15. RED-FACED CORMORANT – S

- **bill partly yellow, blue throat pouch with red border**
- neck with thin plumes, body dark
- sides with white patches, similar to Pelagic Cormorant

## 16. PELAGIC CORMORANT – S

- **bill dark, and throat region red**
- neck with thin plumes, body dark and glossy
- sides with white patches, similar to Red-Faced Cormorant

## 17. DOUBLE-CRESTED CORMORANT – S

- **throat pouch large and yellow**
- eye with small, white tufts above during breeding
- body dark

## 18. DOUBLE-CRESTED CORMORANT – W

- **throat pouch large and yellow**
- body brownish, paler underneath

*Cormorants: Diving birds. Sexes similar. All cormorants have hooked bills. Red throat pouch distinguishes Red-Faced Cormorant in all seasons. Pelagic Cormorant has smaller head, smaller overall size and proportionately longer tail than other cormorants. Double-Crested Cormorant flies with distinctive crooked or kinked neck; yellow throat pouch visible year round.*

*Eiders: Diving ducks. Sexes different. In winter, spring and summer, male eiders are colorful, with distinct pattern. From late summer until winter, male eiders resemble females and are mottled brown. Hatch year birds resemble females.*

## 9. PACIFIC LOON – S

- **bill dark, straight at tip, held horizontal**
- **crown and back of neck gray** 5, 6 Steller's Eider
- throat dark gray-purple, and chin black
- side of neck and back with white vertical barring

## 10. PACIFIC LOON – W

- **bill dark, straight at tip, held horizontal**
- **back of neck dark and white throat contrast strongly** 15 Red-Faced Cormorant

## 14. RED-THROATED LOON – S

- **bill thin, small, dark and upturned, held above horizontal**
- **throat patch red, back of neck striped black**
- head, side of neck and chin gray
- back dark, chest and belly white

## 11. COMMON LOON – S

- **bill large, dark, and straight, held horizontal**
- **head and neck black, with white markings on collar**
- body large with black and white bars and spots 7, 8 Spectacled Eider

## COMMON LOON – W (no image)

- **bill pale gray, straight, held horizontal**
- cap, forehead, back of neck, and back of body gray-brown
- face, chin, throat, front of neck and belly white 16 Pelagic Cormorant

## RED-THROATED LOON – W (no image)

- **bill thin, small, dark and upturned, held above horizontal**
- cap, forehead, back of neck gray
- throat, chin, face and belly white
- back dark, speckled with white

## 12. YELLOW-BILLED LOON – S

- **bill yellow, slightly upturned, held above horizontal**
- body large with black and white bars and spots
- head and neck black, neck with white markings

## 13. YELLOW-BILLED LOON – W

- **bill pale, slightly upturned, held above horizontal**
- back of neck, cap, forehead and back gray
- face, chin, throat, and belly white 17, 18 Double-Crested Cormorant

*Loons: Diving birds. Sexes similar. Color of bill, bill position relative to horizontal and head colors distinguish most loon species in all plumages.*

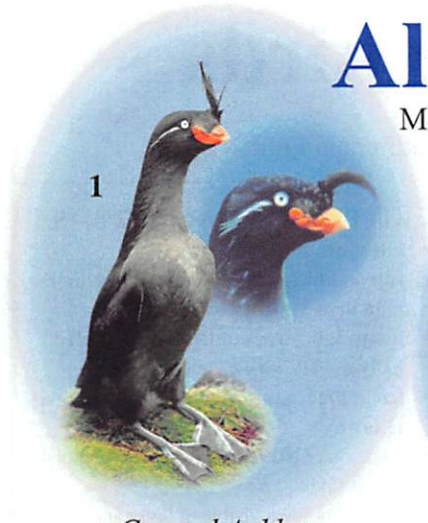
**KEY TO IDENTIFICATION** F - Female; M - Male; S - Early spring and summer; adult breeders; alternate plumage; W - Late summer, fall and winter; adult, non-breeders; basic plumage; juveniles





# Alaskan Seabirds

Match Numbered Photos With Text On Reverse



*Crested Auklet*



*Least Auklet*



*Cassin's Auklet*



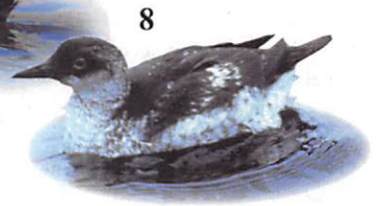
*Parakeet Auklet*



*Rhinoceros Auklet*



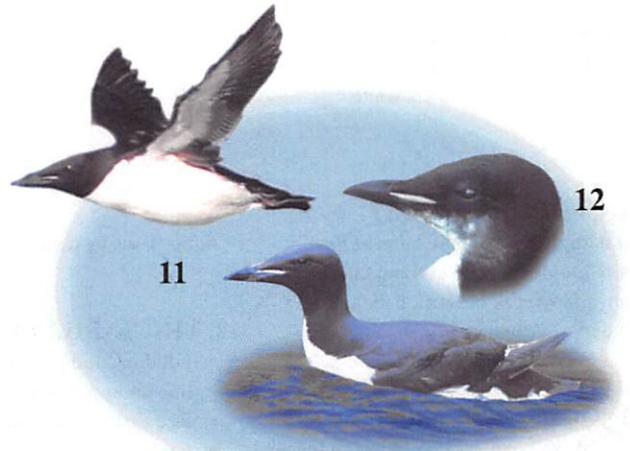
*Pigeon Guillemot*



*Thick-Billed Murre*



*Common Murre*



*Ancient Murrelet*



*Kittlitz's Murrelet*



*Marbled Murrelet*



# Identification of Live Birds

Please match numbers with photos on front.

Bill outlines are life-sized for positive identification. Key identifiers in **bold**.

## 1. CRESTED AUKLET – S

- head greenish on back, bill orange-yellow
- forehead sloping, crown black
- back white, sides black, upperparts and breast white

1 Crested Auklet

## 2. LEAST AUKLET – S/W

- bill dark red, short with paler tip
- eye yellow, throat white, white line behind eye
- underparts mottled black and white, back dark
- underwings white, shoulder feathers white-tipped

2 Least Auklet

## 3. CASSIN'S AUKLET – S/W

- bill short and dark
- obvious white crescents above and below eye
- body small with gray chin, throat and breast
- belly and undertail feathers white

3 Cassin's Auklet

## 4. PARAKEET AUKLET – S

- red bill thick, short and upturned
- belly and undertail feathers white
- body dark

4 Parakeet Auklet

## 5. RHINOCEROS AUKLET – S

- bill with distinct yellow horn at base
- white plumes behind eye and cheek
- body gray overall but back dark and belly mottled white and gray

5 Rhinoceros Auklet

## 6. RHINOCEROS AUKLET – W

- bill with no horn, white plumes reduced
- body gray overall but back dark and belly mottled white and gray

6 Rhinoceros Auklet

## 7. PIGEON GUILLEMOT – S

- bill thin and dark, inside of mouth bright red
- all black body, white wing patch with dark wedge
- feet and legs red

## 8. PIGEON GUILLEMOT – W

- bill thin and dark, inside of mouth bright red, face dark
- body mottled black and white on back, white wing patch with dark wedge
- feet and legs red

## 9. COMMON MURRE – S

- bill long and slender
- head, back and neck blackish
- white breast and belly contrast sharply with dark back
- white belly extends into neck as rounded edge

## 10. COMMON MURRE – W

- bill long and slender
- dark stripe extends from eye across cheek
- foreneck white
- black head and back

## 11. THICK-BILLED MURRE – S

- bill dark and pointed, with thin, white line on upper bill
- upper body and throat more black than common murre
- white belly extends into black neck as a point
- black wings with white trailing edge

## 12. THICK-BILLED MURRE – W

- bill dark and pointed, with thin, white line on upper bill
- face dark, no dark line on cheek
- foreneck white

## 13. ANCIENT MURRELET – S

- bill small and pale yellow
- crown, throat and back of neck black, white cheeks
- head with white plumes, giving an ancient appearance

## 14. KITTLITZ'S MURRELET – S

- bill short, dark and stubby
- cap on head not defined, and face more pale than Marbled Murrelet
- body all brown, mottled and speckled, belly mostly white
- back, breast and head mottled light grey to tawny
- white outer tail feathers visible when first taking flight
- white shoulders visible in flight and at-sea

8 Pigeon Guillemot

9, 10 Common Murre

## 15. KITTLITZ'S MURRELET – W

- bill short, dark and stubby
- black cap on head is narrow and does not extend below eye
- face, throat and back of neck white, back, rump and sides black
- white shoulders visible in flight and at-sea

11, 12 Thick-Billed Murre

## 16. MARBLED MURRELET – S

- bill short, dark and pointed
- black cap on head not defined
- body mottled brown entirely
- white shoulders visible in flight and at-sea

## 17. MARBLED MURRELET – W

- bill short, dark and pointed
- black cap on head is broad and extends below eye
- white throat, chin and underparts, back and rump black
- white shoulders visible in flight and at-sea

14, 15 Kittlitz's Murrelet

*Alcids: Diving birds. Sexes similar: Kittlitz's and Marbled Murrelet distinguished in the breeding season by bill shape, extent of white on body and feather pattern or color. Rhinoceros Auklet is distinguished from other auklets by its large body size and bill; more related to puffins than auklets. All alcids except Cassin's Auklet change plumage in the winter, and in many cases, look like entirely different species.*

16, 17 Marbled Murrelet

**KEY TO IDENTIFICATION** F - Female; M - Male; S - Early spring and summer; adult breeders; alternate plumage; W - Late summer, fall and winter; adult, non-breeders; basic plumage; juveniles

Support: U.S. Fish and Wildlife Service, Fraser Research and Development, Birdsmith Ecological Research, Marine Conservation Alliance, NOAA and Washington Sea Grant  
Text and layout: Jake Fraser and Joanna Smith





# Alaskan Seabirds

Match Numbered Photos With Text On Reverse



*Horned Puffin*



*Tufted Puffin*



*Fork-Tailed Storm-Petrel*



*Arctic Tern*



*Aleutian Tern*



*Northern Fulmar*



*Glaucous Gull*

*Glaucous-Winged Gull*



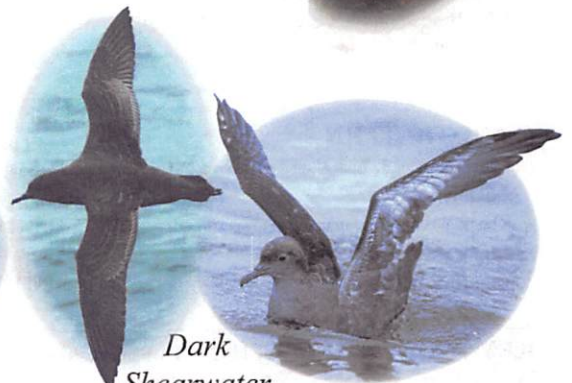
*Parasitic Jaeger*



*Black-Legged Kittiwake*



*Red-Legged Kittiwake*



*Dark Shearwater*  
15, 16



# Identification of Live Birds

Please match numbers with photos on front.

Bill outlines are life-sized for positive identification. Key identifiers in **bold**.

## 1. HORNED PUFFIN – S

- bill with large, bright orange and yellow plates
- face white with fleshy 'horn' extending up from eye
- body dark above and white below

2 Horned Puffin

## 2. HORNED PUFFIN – W

- bill dull/pale orange without large, colorful plates
- body dark above and white below

1 Horned Puffin

## 3. TUFTED PUFFIN – S

- bill with large, bright orange and yellow plates
- face white, yellow tufts behind eye
- body entirely dark

## 4. TUFTED PUFFIN – W

- bill dull/pale orange without large, colorful plates
- face gray, yellow tufts behind eye absent
- body entirely dark in adults, white or dark in juveniles

4 Tufted Puffin

## 5. FORK-TAILED STORM-PETREL – S/W

- small bill with terminal nail (hook)
- dark forehead and eye patch
- forked tail, distinctively blue-gray body, white U on back visible in flight
- rarely seen on the water, bouncy flight like a butterfly

5 Fork-Tailed Storm-Petrel

## 6. ARCTIC TERN – S

- bill deep red, black cap on head extends below eye
- back and upper wings gray, rump and tail white
- long, forked tail, wings lack black wedge on tips, legs red

6 Arctic Tern

## 7. ALEUTIAN TERN – S

- bill dark, slender and pointed
- black cap, white forehead and thick black stripe from cap to bill
- underparts gray, underwing pale, rump and tail white
- long, deeply forked tail, legs black

8 Northern Fulmar

## 8. NORTHERN FULMAR – S/W

- bill with yellow plates, tubes above nostrils and terminal nail (hook)
- body colors range from light to dark gray, underwings mostly white
- body large, stocky and wings long, rapid wing beats, glides on stiff wings

9 Glaucous Gull

## 9. GLAUCOUS GULL – S

- eye yellow
- bill large and yellow, with red spot
- body white with light gray wings

## 10. GLAUCOUS-WINGED GULL – S

- eye dark
- bill large and yellow, with red spot
- body white with light to dark gray wings and upper body

10 Glaucous-Winged Gull

## 11. PARASITIC JAEGER/ARCTIC SKUA – S

- light morph has brown upperparts, white underparts
- cap on head black, covering eye, yellow patch below cap sometimes
- white patch on primaries above and below wing
- long tail feathers, body stocky

13 Red-Legged Kittiwake

## 12. PARASITIC JAEGER/ARCTIC SKUA – S

- dark morph has brown head, underparts and upperparts
- white patch on primaries above and below wing
- long tail feathers, body stocky

14 Black-Legged Kittiwake

## 13. BLACK-LEGGED KITTIWAKE – S

- bill pale, slim and longer than Red-Legged Kittiwake, eye dark
- body white, back gray, wings white with black wing tips
- legs black
- immature birds have black ear spot, bold wing pattern and black collar

15 Short-Tailed Shearwater

16 Sooty Shearwater

## 14. RED-LEGGED KITTIWAKE – S

- bill pale, short and thick, eye dark
- body white, back gray, wings white with black wingtips
- legs bright red
- immature birds have black ear spot, and bold wing pattern and no collar

## 15. SHORT-TAILED SHEARWATER – S/W

- tubular nostrils and terminal nail
- underwing color variable but if white, color is solid
- steep forehead, bill slender, short and dark
- body dark overall but plumage variable, wings long and narrow

## 16. SOOTY SHEARWATER – S/W

- tubular nostrils and terminal nail
- underwing is white or pale, color is diffuse
- sloping forehead, bill long, thick and dark
- body dark overall, wings long and narrow

*Gulls and Gull-like birds: Sexes similar. Seasonal and age-related differences in plumage. Large gulls, like Glaucous and Glaucous-winged Gulls, can be confused with Jaegers/Skuas, Fulmars and Shearwaters. For positive identification, examine bill (shape, size and color), body size relative to wing length, and the color of wing linings. Shearwaters and Fulmars fly near the surface of the water, alternating flaps with long glides; Gulls flap slowly; Jaegers have powerful, direct flight and stocky bodies. Jaegers/Skuas, like fulmars, have light and dark color morphs, and three species are found in Alaska. Small to medium sized birds, like Storm-Petrels, Terns and Kittiwakes may be confused with small Gulls (Mew and Sabine's). For positive identification, examine bill shape, size and color; presence or absence of black cap on head, body color and body size relative to wing length.*

**KEY TO IDENTIFICATION** F - Female; M - Male; S - Early spring and summer, adult breeders; alternate plumage;

W - Late summer, fall and winter, adult, non-breeders; basic plumage; juveniles

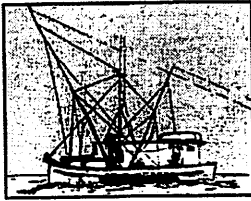
Support: U.S. Fish and Wildlife Service, Fraser Research and Development, Birdsmith Ecological Research, Marine Conservation Alliance, NOAA and Washington Sea Grant  
Text and layout: Jake Fraser and Joanna Smith



Enforcement Committee DRAFT Agenda  
June 5th, 2006 1-5pm  
Best Western  
Harbor Room  
Kodiak, Alaska

1. Report on VMS modifications from Council motion( Sue Salveson)  
-short update initial review in October
2. Maximum Retainable Allowance (MRA) for Head and Gut fleet (Jeff Hartman)
- 3 Overview of GHL and 5 fish limit (Sue Salveson)
4. Overview of Trawl CV eligibility-species endorsements (Jim Richardson)

Suggested Agenda Items for the next meeting



# Alaska Trollers Association

130 Seward St., No. 211  
Juneau, Alaska 99801  
(907) 586-9400  
(907) 586-4473 Fax

May 4, 2006

Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501-2252

RECEIVED  
MAY - 3 2006  
N.P.F.M.C.

Dear Ms. Madsen and Council Members:

The Alaska Trollers Association (ATA) opposes the general application of Vessel Monitoring System (VMS) requirements on small vessels operating in the Eastern Gulf of Alaska. **Implementation of a VMS requirement would place a large economic burden on small boat operators and be personally intrusive to our members.**

ATA is the representative organization for over 2600 troll permit holders. Currently, about 800 power trollers and several hundred hand trollers actively fish for salmon with hook and line gear in state and federal waters off SE Alaska. Many of these boats are family-run operations and some of our members live aboard their vessels. A large number of trollers possess small amounts of IFQ share, particularly halibut, which plays an important role as supplementary income to their salmon fishing operations. The troll fleet is crucial to the health of coastal towns and villages in SE Alaska. With more troll permits in each town than any other permit class, and one of every 35 people working the back deck of a troll boat, our fishermen make a significant contribution to the regional economy.

The VMS regulations you are considering clearly ignore the physical and economic realities of fleets like ours. **VMS units are very expensive to install and maintain.** The cost of installation is expected to be over \$2000 and there will be added expense as the equipment is maintained. **VMS will be one more piece of equipment subject to break down, with fishermen losing precious fishing time awaiting repair or replacement.** **For a typical troller with 3000 pounds of halibut IFQ, the cost of VMS could diminish, or even eliminate, the income potential of their IFQ harvest. The impact of lost fishing time, in any fishery, will be far worse if the vessel owner is still paying off permit, boat, and IFQ loans, which is a major disincentive for new entrants.** In effect, if VMS is required only for IFQ fisheries, it could ultimately force some trollers to sell their halibut or black cod shares, which in turn will negatively impact the bottom line of their salmon business. If VMS is required for the salmon fishery as well, many fear they will have to sell out altogether as they can't afford the equipment or the increased risk of lost fishing time.

VMS units appear to be prone to failure and maintaining functional equipment could impose a large burden on the troll fleet. Most troll vessels are less than 50 feet in length. Ocean conditions will be a factor, because smaller vessels tend to get pitched around more than the larger crabbers and trawlers. This could increase the breakage rate of the VMS unit, which in turn would lead to lost fishing time spent sitting in port awaiting expensive repairs. Since many trollers operate out of small villages such as Pelican, Port

Alexander and Meyers Chuck, the cost of flying someone in for repairs is very high. For instance, a round trip floatplane ticket from Juneau to Pelican this week runs about \$300. Running to a large town such as Juneau, Sitka, or Ketchikan would also mean a significant cost in time, fuel, and moorage fees – if space is even available. Although these costs may be more easily absorbed by large operators who catch hundreds of thousands of pounds of fish worth millions of dollars, it will be cost prohibitive for trollers and other fishermen who make more modest wages.

ATA views VMS requirements for small vessels in the Eastern Gulf of Alaska unnecessary and unreasonable. The area is heavily regulated and relatively easy to enforce. The fleet is already required to carry expensive safety equipment that must be maintained on a yearly basis. Most of the restricted areas of concern to NMFS are in state waters. There are no significant enforcement problems being documented in the region that demand a VMS solution. However, **if problems do arise, perhaps those individuals found guilty of fishing in restricted areas could be required to pay for and carry VMS systems.** The threat of carrying an expensive and invasive device such as a VMS would act as a strong deterrent for those that might consider fishing in illegal areas. But why should the law abiding majority of the fleet be forced to bear that burden of cost and loss of privacy? **And privacy will definitely be a problem for our fleet. Many trollers live aboard their boats, and every day the vessel is moving about is not necessarily a fishing day – how will that be dealt with?**

VMS is both economically burdensome and punitive for small boat fishermen, most of whom are law abiding citizens. Ironically, some in our fleet took a proactive role in the creation of the restricted zones, which are the focus of portions of this discussion. If you enact VMS regulations as a universal, industry funded requirement, the de-facto result will be the continued erosion of small family owned fishing operations and the coastal communities who rely upon them

ATA asks that the NPFMC exempt the Eastern Gulf from VMS requirements. While an effective alternative might be to consider placing VMS on the boats of those found guilty of fishing in restricted waters, requiring fishermen to carry these systems for their troll or longline operations will merely lead to the further marginalization of small business.

Best regards,



Dale Kelley  
Executive Director



North Pacific Fishery Management Council  
Stephanie Madsen, Chair  
605 W. 4<sup>th</sup> Avenue, Suite 306  
Anchorage, AK 99501-2252

**RECEIVED**  
MAY 30 2006

**N.P.F.M.C.**

May 20, 2006

Two years ago, NMFS and the fishing industry came together in Juneau to put the finishing touches on a plan designating five Essential Fish Habitat (EFH) areas in the Eastern Gulf of Alaska. While the fishing industry representatives were somewhat reluctant to support EFH provisions, they struck a verbal agreement with NMFS. In recognition of the unnecessary and insupportable costs to the Southeast fleet, the Government agreed to exempt the fixed gear fleet from VMS requirements. Everyone agreed that defining the closed area was sufficient.

It is difficult to understand the perceived need for VMS programs in the Eastern Gulf (East of 144° W) fixed gear longline fleet. This region is simple to manage and the federal water fisheries are dominated by fleets of small boats fishing for halibut, cod and salmon.

Consider for a minute, the Council's initial work on the black cod and halibut IFQ longline fisheries. The Council is on record that a goal of the program was to maintain the existing characteristics of the fishery, including a diverse, owner-operated fleet ranging in size from skiffs to schooners. The Magnuson-Stevens Act later strengthened guidelines intended to promote opportunity for the small boat fleet and to protect the involvement of coastal communities. Application of VMS requirements to these fisheries will not only undermine but destroy the very characteristics the Council sought to promote and protect. Stack the financial burden of VMS or AIS on longliners or trollers and you're going to radically change the complexion of the fleet in ironic contrast to what the IFQ program was designed to preserve.

The dynamics of the fisheries in the Eastern Gulf (East of 144° W) are very different than the Western Gulf or anywhere in the Nation for that matter. The fleet consists of small, owner operated, often family run operations that are easy to manage because they generally fish close to shore. VMS is not needed to ensure compliance with new habitat protection closures. The fleet has fished around these areas for over a century and yet observations from submersibles found healthy *Primnoa* patches. Fishermen have avoided these patches without regulations; why would fishermen enter them now that they are closed?

Recording a vessel's movement on a nautical chart will not alleviate the need for visual enforcement presence in the fisheries, since clear definition of a troll or longline vessel's activity will not be discernable. Why wouldn't randomly scheduled over-flights from Sitka or Juneau satisfy any enforcement concerns?



These flights are currently conducted to enforce the IFQ program. VMS only provides information about the vessel's location and personal data, but constantly transmitting personal information is intrusive and tells you nothing about a fishing activity. So precisely, what is the real purpose and advantage of VMS? If enforcement of the new Eastern Gulf habitat closures is truly the driving force behind the VMS proposal, then involve the industry in identifying a valid, effective and affordable program. The industry will support increased penalties for entering a closed area, IFQ sanctions for anyone operating in these areas—there are a number of actions the industry will support if they provide the necessary measure of comfort to NMFS enforcement and the Coast Guard that Eastern Gulf fixed gear fishermen continue to stay out of these areas that they have generally already been avoiding for close to a century. As the Council may recall, the fleet has avoided the Sitka Pinnacle closed area for a number of years as well, without VMS, and fished outside Sitka Sound in support of LAMP regulations. Managers have been comfortable that existing regulatory regimes were sufficient; has anything happened to change that?

Imposing a comprehensive VMS or AIS system on small businesses is simply a punitive measure. At \$3000+ for acquisition and installation, and air time of \$500-\$1,000 annually, you'll have stripped every longline vessel of money earned from the first 1000 pounds harvested. Since many of the small vessel owners own little more than 1,000 pounds, you will have turned a viable operation into a bankrupt operation. Add in the increased likelihood of malfunction due to the pounding motion of small boats, the difficulty of finding people capable of repairing non-functional VMS units in remote communities, and the resource costs of leaving gear on the grounds when malfunctioning VMS units send fishermen back to port in the middle of the trip and you have created a management disaster. The result will be massive consolidation of small quota holdings and elimination of the small boat fleet from the IFQ fisheries to the detriment of the fleet and the coastal communities that depend on the fleet.


Inclusion of the salmon industry in EEZ VMS discussion is totally inappropriate. Salmon gear has virtually no contact with the bottom and no salmon troller would go near coral patches. If we head down this road then all EEZ traffic right down to the smallest kayak will end up included under VMS requirements.


The fixed gear industry will work diligently to assure that the Magnuson-Stevens Reauthorization Act contains language to allow fishery management councils an option to include VMS or AIS in select fisheries management programs for specific purposes, but we will stridently oppose any move to make these systems mandatory, particularly for the small boat fleets.


The intent to include the small boat, Eastern Gulf fixed gear industry in the VMS program at the fleet's expense exemplifies gross misunderstanding of the dynamics of Eastern Gulf EEZ fisheries, and an obvious predatory expansion of Government..


In closing, the undersigned associations request that the Council recommend status quo enforcement for the Eastern Gulf fixed gear fisheries. The small boat, fixed gear industry strongly encourages you to resist including small operators in VMS or AIS schemes. If at some point this discussion becomes pertinent to small boat fisheries, it is important that our industry representatives be included in all discussions and appointed to any relevant committees or review panels. Finally, it is crucial that the government drop its current effort to force industry financing of VMS equipment or any associated costs.

Sincerely,

  
Linda Behnken, Executive Director  
Alaska Longline Fishermen's Association  
403 Lincoln Street, Suite 237  
Sitka, AK 99835

  
Dale Kelley, Executive Director  
Alaska Troller's Association  
130 Seward Street #211  
Juneau, AK 99801

  
Charlie Wilber, Chairman  
Seafood Producer's Co-op  
507 Katlian  
Sitka, AK 99835

  
Kathy Hansen, Executive Director  
Southeast Alaska Fishermen's Alliance  
9369 North Douglas Hwy  
Juneau, AK 99801

CC: NPFMC Council and AP Members; Governor Murkowski; Senator Ted Stevens; Senator Lisa Murkowski; Representative Don Young; , Gubernatorial Candidates; Rep. Bill Thomas; Rep. Bruce Weyhrauch; Rep. Beth Kerttula; Rep. Peggy Wilson; Rep. Jim Elkins; Sen. Bert Stedman; Sen. Albert Kookesh; Sen. Kim Elton;

ALASKA ONLINE FISHERMEN'S ASSOCIATION  
403 Lincoln Street, Ste. 237 Sitka, AK 99835  
Phone: 907 747 3400 fax: 907 747 8462  
[alfafish@ptialaska.net](mailto:alfafish@ptialaska.net)

May 18, 2006

Stephanie Madsen, Chair  
North Pacific Fishery Management Council  
605 West 4<sup>th</sup> Street, Ste 103  
Anchorage, AK 99501

**RECEIVED**  
MAY 30 2006  
N.P.F.M.C.

Dear Members of the Council,

In October and December the Council will be considering an amendment to extend Vessel Monitoring System (VMS) requirements to the small boat fixed gear fleet. Members of the Alaska Longline Fishermen's Association (ALFA) are extremely concerned by this amendment, and would like to submit the following comments for your consideration over the summer.

ALFA members object to the potential VMS requirements for a number of reasons, including the unjustified cost to the resource and the industry, the intrusiveness, and the impacts to the small boat fleet and the communities that depend on that fleet.

As many of you know, ALFA's membership is composed of vessel owners and deckhands who target halibut and sablefish from vessels ranging in size from skiffs to halibut schooners. Most of our members own and operate vessels less than 60 feet in length, and many fish from troller/longline combination vessels that are less than 50 feet. While halibut fishing is a crucial part of ALFA members' annual income, many members hold relatively small amounts of quota. A fair number of these vessel owners are currently paying off loans accrued from purchasing quota. ALFA's approximately 65 vessel owner members are representative of the Southeast longline fleet. To illustrate: RAM data (2003) indicate that 82% of the quota share holders in 2C hold less than 10,000 pounds of quota share, and close to half hold less than 3,000 pounds. In sum, for many the profit margin is slim, with salmon markets just starting to recover from a decade long slump and the cost of shares requiring substantial investments. This is not a fleet that can universally swallow the costs associated with VMS without choking, particularly when no one has demonstrated a need for this level of enforcement.

The problem...or lack thereof: While ALFA has long championed resource conservation and paid particular attention to protection of benthic habitat, members did not endorse the bottom fishing closures proposed for Southeast Alaska. Our reasons for not supporting the closures have been validated by this VMS proposal—the unintended or at least unannounced consequences

associated with closing areas with no demonstrated need. Submersible observations in the proposed Southeast HAPC reported intact and healthy corals, despite the fact that longliners have fished intensively around these areas for over 100 years. Either longline gear poses no significant threat to these areas or longliners avoid these corals with adequate care such that a closure is clearly unnecessary. In either case, requiring expensive and intensive monitoring systems to enforce an unnecessary closure around areas that longliners avoid anyway would be all but irrational. If fishermen avoided the areas before they were closed, why would anyone enter the areas now?

The small boat fleet operating in the Southeast area generally fishes close to shore and enjoys plenty of company—including commercial vessels, charter boats and both Coast Guard boats and helicopters. Enforcement is high, given both the density of the fleets and the relative abundance of Coast Guard air stations. The fixed gear fleet has respected a number of other closed areas (e.g., the pinnacles, king salmon savings areas, sea lion rookeries, SS LAMP) without anything even close to VMS style monitoring. What has changed to concern Coast Guard and NMFS enforcement that someone is going to go careening into the coral areas now that they are officially closed? It is one of those unfounded ideas that enforcement people dream up when they are accustomed to dealing with factory trawlers operating in the remote reaches of the Bering Sea hauling in multiple tons of fish. It does not translate well to the small boat fleet in the densely "populated" Southeast area.

The costs: Most Southeast boats longline a few weeks to a month per year—yet the new rule would have all but skiffs buying expensive VMS that are known to break down more easily when subjected to the pounding characteristic of small boats on the ocean. To date, there has been little, if any discussion of the problems associated with repairing VMS units that break down. Sitka is one of the larger fishing ports in Southeast. Nonetheless, there are only two or at times three people in town trained to repair marine electronic equipment. During the fishing season, these two work exceptionally long hours keeping the fleet's radars, autopilots and GPS operable. If longline vessels are not allowed to leave the dock without a working VMS, then boats are likely to sit at the docks for days if not weeks waiting for repair assistance. The vessels will be sitting at the dock with bait rotting on the hooks, ice melting, unload appointments missed, etc..

Now consider the problems fishermen with broken VMS in the small communities or villages will experience, where no one can fix the units, plane service is limited and it takes two days to run to any repair shop, which is, of course, already over-booked. Hopefully these costs will be assessed as part of the analysis—along with the as yet unidentified benefits and needs.

Resource impacts: Finally, consider the effects of a VMS unit breaking down during a fishing trip. No doubt trawl vessels will be allowed to haul gear back aboard, but a fixed gear vessel with several sets in the water will be forced to

leave the grounds and run to town then wait his/her turn behind the mid-season back log of electronics problems. The end result is a conservation issue (gear loss and dead loss), a socioeconomic issue (highly frustrated skipper who can not afford to lose gear and fishing time—especially over a piece of expensive, non-useful equipment), and a management disaster.

One of the goals of the IFQ program was to reduce gearloss and deadloss; is it worth compromising this conservation goal so that NMFS enforcement knows every half hour that the 38 foot troller/longliner hauling a few thousand pounds of halibut really is fishing off Cape Edgecombe where he reported his vessel to be, where 10 other charter or commercial vessels have observed him to be, and where he was sighted by the Coast Guard helicopter exiting Sitka on a training tour?

Consolidation: The VMS requirement will also compromise another cornerstone of the sablefish halibut IFQ program—maintaining the existing characteristics of the fleet, especially with regards to protecting access opportunities for the small boat fleet and the coastal communities that depend on that fleet. Imposing the additional costs associated with VMS on fishermen with small quota share holdings will make already marginal operations unviable. The resulting consolidation of quota will further reduce the fleet at the expense of crew jobs and economic activity in coastal towns.

The VMS requirement for Southeast longline vessels brings to mind the now repealed requirement that IFQ holders remain on board their vessel until the vessel is unloaded. As NMFS enforcement may recall, that requirement led to unnecessary hardships, including a Sitka native elder spending a night in his open skiff, tied to the dock, sleeping in full raingear next to his tote of halibut. Longliners struggled to comply with this requirement for close to a year before it was finally repealed. Equally unfathomable hardships would be imposed with this requirement.

The only “out” for the small boat fleet will be to sell small QS holdings and try to survive as dedicated trollers. The degree of consolidation in the small boat IFQ fleet is already troubling, particularly in light of associated impacts to coastal communities. Reducing the size of the small boat fleet also runs contrary to another goal of the halibut/sablefish QS program: that of maintaining a relatively large and diverse fleet; and in particular, protecting the small boat, community-based fleet, crew jobs, etc.. It is likely that these goals will be further strengthened through the on-going Magnuson-Stevens reauthorization process, leaving the VMS requirement even more at odds with National and regional objectives.

The intrusiveness part may be hard for Council members to understand since the factory fleet has grown accustomed to NMFS tracking their whereabouts wherever they go. But a large percentage of the troll/longline fleet live on their

boat with their family year round or at least seasonally, hence a VMS on board is akin to bugging a person's home. Again, many people will sell out rather than face the costs, the frustration associated with break downs, and the intrusiveness. ALFA does not believe that is in the best interest of the industry, the coastal communities, or the Nation.

In closing, ALFA urges the Council to add the following alternatives to the VMS analysis: exempt Gulf fixed gear vessels from the VMS requirements; exempt all Gulf fixed gear vessels under 55 feet; exempt all fixed gear vessels operating in the Eastern Gulf; exempt all fixed gear vessels operating east of 140 degrees West Longitude.

There is simply no justification for VMS requirements on the Gulf fixed gear fleet, particularly in the Southeast area. This issue is especially frustrating due to the unintended or at least unevaluated impact of the EFH habitat closures, which were billed as having minimal impacts on the industry. A mandatory VMS will have a major impact on the small boat fixed gear fleet, driving small operations out of business and increasing consolidation of quota share. The VMS requirement will also impose resource costs, creating gearloss and deadloss when units malfunction during a fishing trip. These impacts are not offset by any benefits. In sum, the proposal to require VMS on the Gulf fixed gear fleet in general and the Southeast fixed gear fleet in particular is the quintessential example of a problem in search of a solution. ALFA appreciates the Council's assistance in avoiding what promises to be a management disaster.

Thank you for your time and consideration.

Sincerely,



Linda Behnken  
(Director, ALFA)

## June 2006 SSC meeting

### B-7 Protected Species Report

The SSC received and reviewed multiple Protected Species reports from Council staff lead, Bill Wilson (NPFMC). As usual, the SSC commends Bill Wilson for his very thorough report on the many protected species issues. SSC comments are noted below under each specific item.

- A. GOA and BSAI groundfish FMP level consultation update. Formal section 7 consultation was reinitiated in April 2006 when NMFS sustainable fisheries submitted their biological assessment to NMFS Protected Resources. The Council's SSL Mitigation Committee (SSLMC) has been reconvened to review proposals for changes to SSL protection measures, as "the principal interface between the Council and the consultation" process. The SSLMC met twice since the April Council meeting to review research that has taken place since the last BiOp. The SSLMC recommended that the Council should call for proposals to change SSL protection measures in Pacific cod, Atka mackerel and pollock fisheries in the GOA and BSAI, with proposals due in early August. The SSLMC is hoping that the Council will issue a call for proposals at this meeting in order to comply with the Council directive for resulting regulations to be effective in 2008.

The SSC notes that the SSLMC minutes refer to the development of a "trade-off tool." The SSC has had concerns over the methods used in the past and note that the same two methods, a modified "bump" analysis and the zone approach are being considered again for use. The last time the SSC saw this tool was in June 2004 when it was delivered during the meeting without lead time, and thus was not reviewed thoroughly by the SSC. The SSLMC apparently is proposing to use some sort of tradeoff tool as they work through proposals for changes to SSL conservation measures. Since that is a Council activity, the SSC or some other peer review body needs to review it before it is used. Then at the October meeting, the SSC can review the application of the tool, not the formulation of it. One of the challenges of devising a tradeoff tool is that the tradeoffs involve different criteria measured in different ways that cannot be easily subsumed into a unitary criterion or ranked in terms of relative importance. The SSC has previously commented on the logical inconsistencies of summing scores across dissimilar criteria. The SSC notes that there are a variety of decision analytic tools that are specifically designed to evaluate the performance of alternatives in the context of different criteria<sup>1</sup>.

---

<sup>1</sup> See for example:

- Keeney, R. and H. Raiffa. 1976. Decisions with multiple objectives. John Wiley and Sons 569 p.
- Bain, M. 1987. Structured decision making in fisheries management: trout fishing regulations on the Au Sable River, Michigan. *American Journal of Fisheries Management* 7:475-481.
- Brownlow, S. A. and S. R. Watson. 1987. Structuring multi-attribute value hierarchies. *Journal of the Operational Research Society* 38(4):309-317.
- Gass, S. 1983. Decision-aiding models: validation, assessment, and related issues for policy analysis. *Operations Research* 31(4):603-625.
- Healey, M. 1984. Multiattribute analysis and the concept of optimum yield. *Canadian Journal of Fisheries and Aquatic Sciences* 41:1393-1406.
- Hilborn, R. and C. Walters. 1977. Differing goals of salmon management on the Skeena River. *Journal of the Fisheries Research Board of Canada* 34: 64-72.
- Mackett, D. 1985. Strategic planning for research and management of the albacore tuna fishery. *Systems Research* 2(3):201-210.
- Walker, K. D., R. B. Rettig, and R. Hilborn. 1983. Analysis of multiple objectives in Oregon coho salmon policy. *Canadian Journal of Fisheries and Aquatic Science* 40:580-587.

We suggest that tests for outcome, event, and stochastic dominance could serve as appropriate measures for ranking alternatives. In addition, the SSC notes that there are a variety of decision analytic methodologies that could be used to elicit implicit weighted rankings of plural criteria. The analytic hierarchy process (AHP)<sup>2</sup>, is a methodology for reducing complex multiple criterion decisions to an internally consistent set of pairwise comparisons and could serve as a useful approach to design a tradeoff tool.<sup>3</sup>

The SSC received a report from Jack Tagart of Tagart Consulting on a compendium of SSL research reports since 2000. The Compendium is an annotated bibliography with summary sections by general topic and is available on the SSLMC web site. The SSC thanks the authors for a huge job well done and thinks this will be a useful document for the upcoming SSL discussions. The SSC notes that some work is missing (e.g., work of student of Dr. Quinn). The compendium includes abstracts and posters from conferences in an effort to capture the most recent information. The SSC understands that the project is basically finished and modifications are not possible from the authors but strongly urges language be added to the document highlighting the differential quality of citations. Some users of the material may not be aware that abstracts and posters are often preliminary analyses that may not have undergone peer review and conclusions may change with further analysis and peer review. Abstracts printed in symposium books of abstracts are printed in advance and may not even represent the work that was actually presented at the conference.

---

<sup>2</sup> See for example:

Saaty, T. L. 1990. Multicriteria decision making. University of Pittsburgh, Pittsburgh, Pennsylvania. 287 pp.

Merritt MA and KR Criddle. 1993. Multiple criterion decision theory for judging management strategies and resolving conflict: a case study of the Kenai River recreational fisheries. Pages 683-704 in G Kruse, DM Eggers, RJ Marasco, C Pautzke and TJ Quinn II (Editors). Management Strategies for Exploited Fish Populations, Alaska Sea Grant, Fairbanks, AK.

<sup>3</sup> It might be advantageous to ask Dr. Margaret Merritt (University of Alaska Fairbanks) to participate as facilitator for a session of the upcoming SSL Recovery Team meeting to assist team members to structure an AHP model of the tradeoff tool.



- B. The List of Fisheries (LOF) for 2006.** Four of the 5 Category II fisheries listed in the 2005 LOF remain on the 2006 list; turbot longline was dropped. The SSC commented extensively on LOF analyses and issues in our minutes from February 2005 and October and December 2004. Some of the issues may have been addressed (e.g., double counting, assignment of killer whale takes to specific stocks) but others have not. From the February 2005 minutes: "The SSC previously commented on the analyses and assumptions that went into the List of Fisheries for the 2005 report in our October and December 2004 minutes. Four main issues were highlighted: (1) the sampling of incidents of serious injury and mortality of marine mammals, which are rare events, and the appropriate length of time series of observations to use to estimate the frequency of these rare events, (2) the need for observers to estimate the frequency of serious injury and mortality in state-managed fisheries, (3) the assignment of observed mortalities to more than one marine mammal stock per occurrence, and (4) the appropriateness of procedures used to estimate incidents of serious injury and mortality for unobserved hauls and fisheries. The SSC feels that these issues remain to be addressed, but they are not easily resolved". **In the future, the SSC requests that proposed rules for LOF be scheduled in a way that allows for SSC review before the end of the comment period. Also, the SSC requests that the authors work with the SSC to resolve outstanding analytical issues.**
- C. Draft SSL Recovery Plan.** The SSC appreciates the amount of work that has gone into this plan and recognizes the contentious nature of the discussions during its writing. SSC comments here will be cursory due to lack of time to review this large document. The SSC sees this is an important document that is likely to affect the upcoming FMP consultation and subsequent documents since they will need to be consistent with down-and delisting criteria, threats assessment and associated conservation actions. Because this document sets the tone and base for future documents and arguments, the SSC thinks it is important to do a thorough review. The deadline for comments will not allow the depth and quality of review that the SSC thinks is appropriate. Therefore, the SSC requests that the Council ask for an extension on the comment deadline. The SSC proposes to proceed with the review by establishing smaller workgroups to address specific issues such as the PVA, threats, down-listing and delisting criteria, and the research plan or actions.

During the presentation on the SSL Recovery Plan, most SSC questions concerned the following topics:

1. Availability of data on various hypotheses and ranking of various inputs.
2. Merits of comparing the western stock to the eastern stock.
3. Status of stocks relative to carrying capacity.
4. Use of growth rate-based vs. abundance-based criteria for delisting.
5. Length of period over which rate must be maintained.
6. Ability to implement adaptive management strategy, given previous obstacles to implementing such experiments.
7. Down-listing criteria that require that no two adjacent sub-areas can be declining significantly, with particular concern about the western Aleutian Island and Asia for which the U.S. has no regulatory authority.
8. The feasibility of obtaining comprehensive vital rate estimates (e.g., survival, fecundity) on a broad scale as a check on population growth rate.
9. Need to hear a presentation and conduct a thorough review of the PVA presented in Appendix 3, including model structure, input, and assumptions.

10. The possibility of utilizing a PVA to develop a quantitative risk assessment of down-listing and de-listing criteria.
11. Development of a research plan that would produce data useful to validate or falsify the *three primary hypotheses regarding factors potentially affecting the western population (i.e., killer whale predation, prey availability affected by climatic variability, and prey availability affected by fisheries).*
12. Concern about circular reasoning in the development of de-listing criteria for the eastern stock. The requirement that *"the population has increased at 3% per year for 30 years"* appears to be based on the observed historical trend and not based on any assessment of risk or status of the stock.

D. **Seabirds.** The SSC received presentations on two reports concerning seabird abundance and distribution by Ed Melvin and Michelle Wainstein (Washington Sea Grant) and two reports from Sunny Rice (with co-authors Torie Baker and Paula Cullenberg, Alaska Sea Grant) discussing the development of alternatives for seabird bycatch deterrence devices for small longline vessels.

The analysis of seabird distribution and abundance based on several summer surveys concluded that *longline fishing posed little to no risk for the procellariiform (tubenose) seabirds or other species with conservation concern encountered as bycatch in Alaskan inside waters. This conclusion is based on the low abundance of tubenose birds in these areas, the overall low bycatch of birds in Alaska inside waters, and operational characteristics of small vessels that reduce the probability of interaction. Of all Alaskan inside waters surveyed, black-footed albatrosses were observed only in the mouth of Chatham Strait and Dixon Entrance (four ADFG statistical areas).*

The SSC supports the development of an EA/RIR to analyze the feasibility of *eliminating the requirements for seabird bycatch deterrents for longline fishing in inside waters, but upholding current deterrent requirements in all outside waters. This action would relieve requirements for vessels fishing only inside waters (at least 25% of longline vessels), and would help vessels fishing both inside and outside waters (up to 42% of longline vessels).* A more formal assessment of bycatch risk and development of options to provide seabird bycatch protection in those areas should be pursued as management options are developed. Also, the definition of vessels possessing masts or rigging as applied to deterrent regulations may be made simpler by removing many of the vessels that fish inside waters only. The SSC recommends the analysis include other potential sources of information on seabird distribution in inside waters, noting the paucity of data (only one survey station) in state waters of Cook Inlet. The SSC praises the use of agency longline surveys to date but also recommends pursuing additional future collaborations with other surveys and observer programs (e.g., pot or trawl gear) to enhance seabird spatial and temporal distribution information, especially in relation to long-term changes in climate and fisheries.

*Flylog Q*

Small longline vessels have unique challenges in conforming to the same performance standards implemented for larger vessels due to physical and

operations constraints (e.g. limited storage space, rigging height, or expense). These projects were conducted to develop options for seabird deterrents on smaller vessels and to evaluate the necessity of deterrent devices for vessels operating in Prince William Sound (NMFS area 649), inside waters of Southeast Alaska (NMFS area 659), and the state waters of Cook Inlet.

The SSC also received two reports describing feasibility tests of alternative seabird deterrent devices designed specifically for small vessels. We applaud the collaborative approach with industry in developing options to address these problems. The authors tested several options that would be acceptable under current regulation, such as using larger hoses to reduce entanglement with drag buoys, lighter-weight line for streamers, longer-length lines for streamers, and davits to deploy streamers when appropriate rigging is not present. The authors also tested the feasibility of options that would not be useable under current regulation, such as an integrated weight mainline, or water spray devices. The projects did not compare seabird encounter rates, only practicality of deployment and compliance with performance standards.

The SSC does not recommend development of an EA/RIR for new seabird mitigation measures for small vessels at this time. Information provided indicated that it is premature. The SSC encourages further development of these tools and supporting experiments to determine efficacy of bycatch avoidance methods. Researchers should continue to work with the fishing industry to develop bycatch reduction measures that meet acceptable performance standards when applied to the diversity of small vessels in the fleet. Further development and testing under fishing trials is necessary before an amendment can be developed.

**C-1(b) IR/IU Data**

John McCracken (NPFMC staff) and Darrel Brannen provided an update on the development of a program to gather vessel-level production, cost, and financial performance data for the non-AFA catcher processor sector. The SSC strongly supports the regular collection of this data as a necessary input into retrospective analyses intended to determine whether amendment 80 is successful at achieving its intended purpose and need, and as a basis for informing future Council decisions regarding the potential consequences of introducing similar management measures in other fisheries. Because the non-AFA catcher processor sector includes a relatively small number of vessels and because there is considerable diversity in the size and configuration of the vessels, the SSC recommends that the data be collected as a census rather than a statistical sample.

**C-1(c) MRA**

Jeff Hartman (NMFS) provided an overview of the draft EA/RIR/IRFA for changes to the MRA accounting intervals. The SSC supports release of this draft amendment for public review.